The American Artisan
And Hardware Record

Vol. 57. No. 9. CHICAGO, FEBRUARY 27, 1909. $2.00 Per Year.

TURN BUCKLES

A full line of Bolts, Bolt Ends, Rivets, Lag Screws, Nuts, Washers and Carriage Hardware.

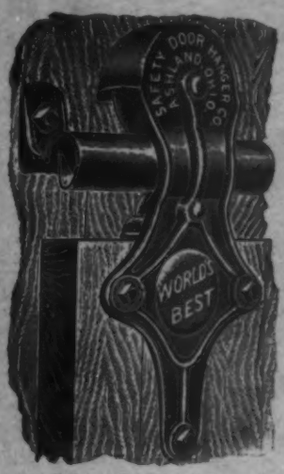
COLUMBUS BOLT WORKS, COLUMBUS, OHIO.

GET THE LIVE LINE
"AMERICAN SEAL"
Elastic Oil Roofing Cement,
Stove Putty and Asbestos
Furnace Cement
For Furnaces, Stoves, Ranges and Roofs.
Jobbers write to-day for prices
THE
Wm. Connors Paint Mfg. Co.
Makers TROY, N. Y.

Western Agents: Friedley-Voshardt Co., 194 Mather St., Chicago, Ill.
Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

This Space for Sale.
Inquire of Daniel Stern,
355 Dearborn St., Chicago

Handle Goods that are Right
ORIGINAL
MATCHLESS
Spring and Pivot Hinges, Floor Hinges, Jamb Hinges and Hardware Specialties
are handled by the best dealers.
If your jobber can not furnish them, write us.
LAWSON MFG. CO.
40 Dearborn St., CHICAGO.



WORLD'S BEST
TUBULAR TRACK
DOOR HANGER
Our Track has the SLIDABLE Bracket, the feature that has made World's Best Hangers so popular with the Building Trade.
Write for Catalog and Prices
SAFETY DOOR HANGER CO.
Ashland, Ohio, U. S. A.

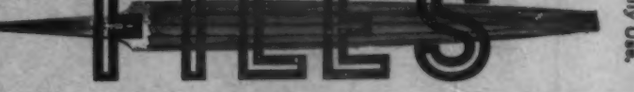
"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES
WILL NOT Scale Off like cheap enamel.
WILL NOT Scorch or Burn like light fry pans and skillets.
WILL NOT Absorb Grease or Flavors like cast iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods

The Highest Grade File Made.

TRADE MARK DELTA
DELTA FILE WORKS
CARVER FILE CO.
PHILADELPHIA, PA.
An independent organization not connected with the trust in any form, shape or manner.
FILES OF QUALITY



The File You Will Eventually Use.

PULLMAN
SASH BALANCES

Are you selling them?
IN USE EVERYWHERE
Send us your orders.
PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHESTER, N. Y., U. S. A

100
Tinners' Patterns
Complete for
$1.00
Sent Postpaid on Receipt of Price
Daniel Stern
355 Dearborn Street - Chicago

You Can Make 40% Profit on

Cinderella Steel Ranges

If You Ask It

And that is the only way you make any profit on anything.

Put in a stock of **Cinderella Steel Ranges** *and guarantee every one of them.*

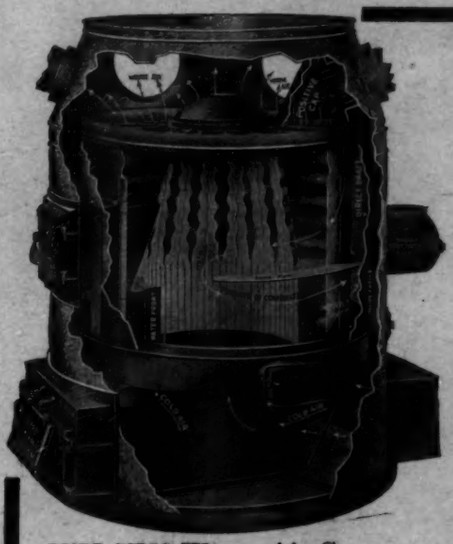
To boil a kettle on all 6 cooking holes.
To bake quick and even without extra firing.
To be "the ideal early breakfast range."
To be strong water heaters.
To be economical fire keepers.
And that you will take them back if they fail.

We have a customer in a town of less than 1000 people who made over $700 net profit on this proposition last year.

Do Steel Ranges wear as well as cast? **Look any scrap pile over and see.**

Stove & Range Co. of Pittsburgh

Good Values in Stoves. **PITTSBURGH, PENNA.**



LOOK OUT FOR YOUR FUTURE!

While you haven't made any money selling ordinary furnaces in the past,—perhaps you think the time is coming when you can make up for lost time.

That time is here now,—if you take the KELSEY Exclusive Agency!

The better class of buyers,—**the people who really have the money to pay cash down** for a heating job,—are willing to pay a fair price for good work.

That is the class of trade to whom you can sell KELSEY Warm Air Generators on the merits of the KELSEY. You will get a good price for each job,—each job will give you a bigger profit than you'd make on several ordinary furnace jobs,—and you get cash when the job is finished!

Does **that** class of heating work appeal to you?

Then let us send you the KELSEY Exclusive Agency proposition,—**and point the way for bigger profits for you!**

Kelsey Heating Company, Syracuse, N. Y.

NEW YORK, 156 Fifth Avenue.
CHICAGO: Van Evera & Lewis Mfg. Co., 104-106 W. Lake St.
James Smart Mfg. Co., BROCKVILLE, ONTARIO, Sole Makers for Canada.

Jewel Gasolene Stoves

HAVE NO EQUAL
IN
LOOKS, CONSTRUCTION AND SERVICE

No. 896

CATALOG HOUSES CANNOT BUY JEWELS

GEORGE M. CLARK & COMPANY

DIVISION AMERICAN STOVE COMPANY CHICAGO

FOSTER'S AGENT

A New Steel Range Just Out

This is a strictly up-to-date Range in every particular. It is a new one, which fact enables us to assure dealers that every fault and weakness characteristic of older ranges are entirely overcome in

FOSTER'S AGENT

AN OPPORTUNITY

is offered in this range to dealers anxious to improve and enlarge their steel range business. It can be guaranteed. It will prove a seller.

FEATURES—The body is made of Wellsville Polished Steel, riveted closely and the fire box is of the up-to-date kind, which permits removing any of the fire linings, including the Duplex Grates, without detaching the water front from the pressure boiler.

The FOSTER Line of Stoves and Ranges is an unexcelled line of trade winners and satisfaction givers.

WRITE FOR OUR CATALOG. IT WILL INTEREST YOU.

THE FOSTER STOVE CO. IRONTON OHIO

WESTERN BRANCH: 1306 W. 8th Street, Kansas City, Mo. F. C. TUTTLE, Manager.

VAN'S

Patent Improved
Wrought Steel Portable

RANGE

For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The
JOHN VAN RANGE CO.
Southwest Corner
5th and Broadway
CINCINNATI, - OHIO

The Champion Interchangeable Gas Range

2 IN 1

The Range that does double the work of any other Gas or Coal Range

You can COOK, BAKE, ROAST and BROIL with Gas, Coal or Wood without *removing a burner*

More Economical than a Gas Range

Has six 8-inch cooking holes with reducing lids, two summer grates; oven, 18½ x 20½ x 14. Broiler 18½ x 20½ x 14. Warming closet of CHAMPION STYLE, body of polished steel, full asbestos lined. Made with the usual CHAMPION CARE.

A Range of Quality, Durability and Economy

Write for Catalogue and Discounts

The Champion Steel Range Co.

CLEVELAND, OHIO

"QUICK MEAL"

GASOLINE STOVES

Are now entering their 27th year of continuous service.

No other line of Gasoline Stoves has been able to build up and maintain a reputation equal to the "Quick Meal."

"Quick Meal" Gasoline Stoves have always been made as the Best. They have proven themselves the best. That is the reason you will find the same dealers are selling them to-day that sold them 20 and 25 years ago.

RINGEN STOVE CO. DIVISION OF AMERICAN STOVE CO.

ST. LOUIS, MO.

SAN FRANCISCO, CAL. **Indiana St., Between 20th and 21st**

1909 CATALOGUE ON REQUEST

We know the assertion has often been made —We save you 50% in your Fuel Bills, but **has it ever been done?**

We go further. We save you 60%, and will prove it by sending a Control Cook Stove, subject to approval, for you to test out.

ALBANY FOUNDRY CO., Albany, N.Y.

BANNER QUALITY

This is a range of unquestioned merit and individuality.

It is handsomely designed, made of the best materials, free from defects of any nature and carefully and honestly constructed—in fact a first-class range in all respects.

It will sell because it is just what your customers want, a range that can be depended upon at all times, a range that sells at a price which is right and a range that cooks and bakes to perfection.

Mr. Dealer—You should handle it, there's money in it for you. Write for further particulars.

Quality Stove & Range Co., Belleville, Ill.

Munsell's Mica

EUGENE MUNSELL & CO.
NEW YORK AND CHICAGO

THE STANDARD FOR HIGH GRADE STOVES

The Penn Glory

A High Grade, Up-to-the-minute Range That Sells at a Medium Price

This is an attractive and perfect working range, made in nine sizes.

PENN Trade-Mark

Features

Detachable or Solid End Hearth. With or without Water Front. With or without Reservoir. Duplex Grate. With or without Pipe Shelf or Tea Shelf. Write for catalog.

MT. PENN STOVE WORKS
READING, PA. 111-113 N. 2nd St., PHILADELPHIA, PA.

See How It Looks

Learn How It Cooks

FAULTLESS Malleable IRON RANGE

FAULTLESS STOVE WORKS, St. Charles, Ill.

Cottage Heating

By Steam or Water
The Modern Way

At once Inexpensive, Helpful and Economical.

There is a vast field for this branch of heating in both new and old houses.

Modern Boilers and KEWANEE Radiators

Meet all requirements.
Write for Catalog.

Kellogg-Mackay Company
CHICAGO
Minneapolis Seattle

1,000 Candle Power Light at Less Than One-Quarter The Cost of Electricity

One of these Lamps Lights a 30x40 ft. Room as Bright as Sunshine

One Gallon of Gasoline Operates One Lamp 12 to 15 Hours

Safe, Powerful, Economical, Simple and Durable

Illuminate Your Store, Church or Factory

with our new **"DUPLEX"** or **"TWIN INVERTED"**

Center Generating, Arc, Hollow Wire System Lamps,

and draw trade after dark. This is the most powerful, simple and safest system of lighting ever placed on the market. These lamps pay for themselves in a short time. We are the Sole Manufacturers of these and the famous Brilliant Lamps. Write for Catalog A. A. H.

BRILLIANT GAS LAMP CO., 42 State St., Chicago

E. Miller, Warren, Ind., writes: "I don't see how I have been without THE AMERICAN ARTISAN."

Our Strictly New Furnace

Built to the Hour

A Powerful Perfect Worker

OUR NEW ONE

WHATEVER IS GOOD, NEW AND MODERN IN FURNACE MAKING HAS BEEN CONSIDERED IN THE PLANNING AND BUILDING OF THIS FURNACE. * HEAVY STEEL PLATE IS DESIRABLE FOR QUICK HEATING WE HAVE IT IN THE LARGE RETURN RADIATOR. * HEAVY CAST IRON IS DESIRABLE FOR DURABILITY IN FIRE SECTION, WE HAVE IT THERE. * LARGE DOORS ARE DESIRABLE, WE HAVE MADE THEM LARGE. * PROMPT RELIABLE ACTION IS ESSENTIAL, THEY ARE HERE CORRECTLY AFFORDED.

THERE IS NO MORE SATISFACTORY FURNACE THAN THIS. THEY MAY TIE IT BUT THEY CAN'T BEAT IT. HEAVY STEEL HIGH RETURN RADIATOR WITH CAST TOP AND BOTTOM. ASBESTOS PACKED JOINTS EVERYWHERE. BIG FIRE-POT, BIG ASH-PIT, BIG CLEAN-OUT, BIG DOORS GROUND TO PERFECT FITTING. HEAVY SEPARATE GRATE BARS. DUST TIGHT. GAS TIGHT. A VERY COMPLETE MODERN FURNACE THAT WILL SATISFY BOTH YOU AND YOUR CUSTOMERS.

WALTER S. RAIT & CO.

211-213 Lake Street, CHICAGO, ILLINOIS.

Boynton's Square Pot Crusader Furnace.

WHY

Are Boynton's Square Pot Furnaces

Taking So Well with the Trade?

Because they not only have talking and selling points, but because these talking and selling points are **real points of merit** that will stand back of the dealer after he has sold and installed the apparatus.

Write Us for Our Catalogue and Full Description

GET IN LINE

BOYNTON FURNACE CO.

147-149 Lake Street, CHICAGO 207-209 Water Street, NEW YORK

YOU CANNOT COMPETE

with Mr. Cutter and Mr. Slasher. Therefore let the cheap furnace work go, and **make a push** for High Class and **profitable** Heating Work.

Showing Flue Construction, Fire Pot and Extension Flue Partitions.

The Faultless Scientific Heater

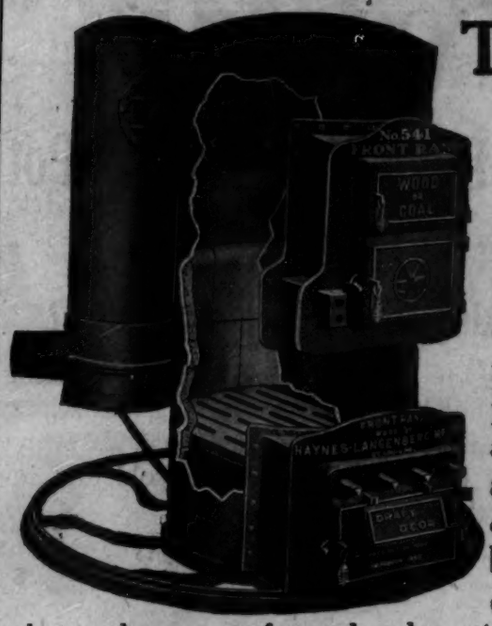
will enable you to obtain the **BEST HEATING WORK** at **GOOD PRICES** without regard to competition.

It is the Best Furnace Construction in the market and many people want the **BEST** and will pay for it.

Our catalogue will convince you that our Heater has no equal, and you can demonstrate this to your customers. We invite the most careful examination of our claims.

The Graff Furnace Co.

208 WATER ST., NEW YORK.



THE FRONT RANK STEEL FURNACE

A strictly up-to-date, correctly constructed furnace which will put any dealer in the front rank of successful furnace men. ¶ That this furnace will furnish a large volume of pure warm air and distribute it perfectly can be depended upon. ¶ That it is economical, durable and effective is guaranteed. ¶ A desirable feature is the fact that the drum is made of a solid sheet of heavy armor plate steel with but a single seam. ¶ Another is that heavy cast flanges are placed around the openings where the smoke passes from the drum into the radiators to protect the steel. ¶ The Front Rank is riveted like a boiler and is absolutely gas tight. ¶ We would like to send you our Catalogue and terms.

HAYNES-LANGENBERG MFG. COMPANY,

4045-4057 Forest Park Blvd
ST. LOUIS, MO.

211-213 Lake Street
CHICAGO, ILL.

No Question About It

The Powerful, Durable, Scientifically Constructed

WISE FURNACE

Assures Dealers ABSOLUTE FREEDOM FROM ALL FURNACE TROUBLES—

A Bigger and Better Furnace Business

More Sales **More Profits**

WRITE FOR THE AGENCY

THE WISE FURNACE CO., Akron, Ohio

Superior Furnaces Imperial Boilers

"The Coal Savers"

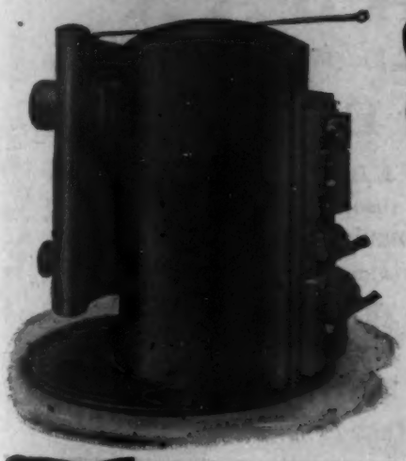
The Line for every ambitious heating contractor to handle for 1909 and 1910 and every other year.

Prompt shipments at all times from either Utica or Chicago Stocks.

Utica Heater Company

Utica, N. Y.

Chicago Branch, 105 Lake St., Chicago, Ill.



"Why Sell a Dirty Furnace"

Furnace dealers themselves are largely responsible, for the general impression that a hot air furnace in a house causes dirt and smoke and gas,

The hot water and steam men, work this argument for all it is worth, but hot air men could get clear around it if they would handle **LENNOX TORRID ZONE FURNACES.** Made of heavy steel plates, and riveted like a boiler, absolutely gas, smoke, and dirt tight.

There is not a single packed joint to loosen and leak gas.

The firepot in sections, is entirely enclosed within the steel dome. Hot water plants have no argument over the **TORRID ZONE.**

The extra radiator, with eight feet of indirect smoke travel, with both direct and indirect draft, and with upright and vertical smoke travel throughout, which prevents soot and ashes to collect and retard radiation, makes **TORRID ZONES** such powerful heaters, that they have won an immense sale throughout the Canadian Northwest, where none but the best can battle with a northern winter.

Double feed doors, sectional fire pot—replaceable thru the fuel doors—perfect arrangement for hot blast, patented dove-tailed locking device for collar connecting radiator to main body. Minimum door front radiation, deep ash pit, quick radiation, both direct and indirect draft—heavy steel and protection to every exposed part, gives the **TORRID ZONE FURNACES** an individuality, which enables a dealer to sell them independently of the average hot air furnace, and in direct competition with hot water at prices way below water or steam.

WE HAVE THE LARGEST FACTORY IN THE WORLD FOR MAKING STEEL FURNACES

Lennox Furnace Company, Marshalltown, Iowa.

Weir Facts

The materials, workmanship, and perfect operation of the

Weir

All Steel Furnace

are fully backed by the manufacturers.

It will do satisfactory work, it is economical, powerful and durable

AND

it will absolutely consume the

Gases and Soot

This furnace offers dealers a splendid opportunity. Write for our handsome catalogue.

WRITE TO-DAY

The Meyer Furnace Co.
Peoria, Ill.

THE AJAX

CAST OR STEEL RADIATOR

First Class In Every Detail

SPECIAL FEATURES

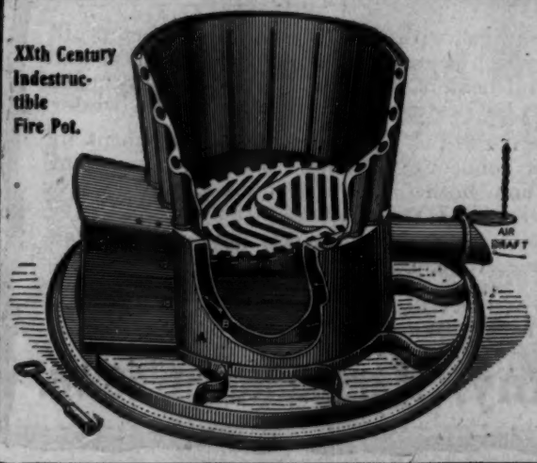
Large and commodious ash pit: absolutely gas tight cup joints; draw-out triangular grate.

MANUFACTURED BY

Co-Operative Foundry Co.

ROCHESTER, N. Y.

Western Branch: 264 S. Clinton St., Chicago **Phone Harrison 6373**



XXth Century Indestructible Fire Pot.

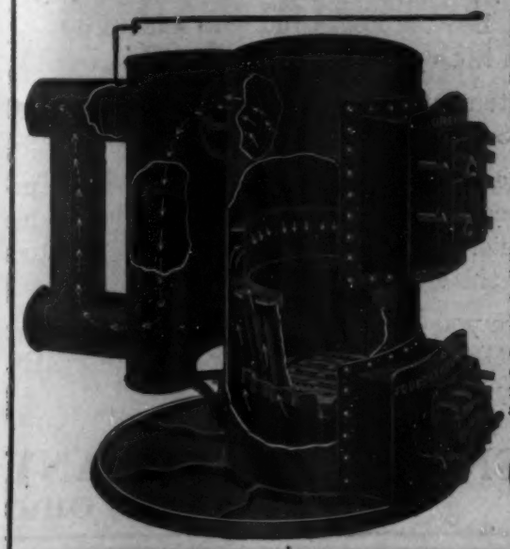
Pledge Yourself

To start the New Year right by handling and installing The Celebrated Line of XXth Century Furnaces and Boilers, and you will enjoy a prosperous and happy new year. Reasons on request. Write for them.

XXth Century Heating & Ventilating Co.

General Office and Factory, AKRON, OHIO

If You Want to Sell Furnaces



You must be able to show your customer that you have what he wants and what he should use. You must show him that you have something better than your competitor is offering him. You must show him a furnace which has all of the **modern conveniences,** a furnace which will be **economical** in the use of fuel, a furnace **well built** and of the **best material.**

GREEN'S BASE HEATER FURNACE

is a combination of all of the **modern features of furnace construction.** It has the **slotted fire bowl** which admits the air into and above the fire consuming the smoke and gases. The ashes cannot accumulate behind this bowl, consequently there is no danger of burning it out, which has been the great objection to furnaces with cast iron linings. It has a **large combustion chamber, double feed doors, water coil pocket, large smoke travel** and a **deep ash pit.** It it well built, a furnace intended for the man who wants a first-class article at a reasonable price.

Write for catalogue giving full description and illustrations.

Green Foundry & Furnace Works

DES MOINES, IOWA.

LINCOLN STOVE REPAIR CO., Lincoln, Nebr., State Mgrs. for Nebr.
ROWE CONST. & HTG. CO., Watertown, S. Dak., State Mgrs. for S. Dak.

Increase of Profit

can only be had by selling goods that have no competition.

The MUELLER All Cast, Double Radiator Furnace stands in a class of its own—has absolutely no competition as regards Quality, Amount of Direct Heating Surface, Economy and Durability.

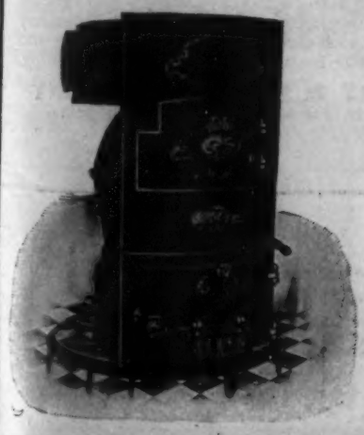
To sell the MUELLER means More Sales—Greater Profit.

The Exclusive Agency of the MUELLER will be of value to you. Do You Wish It? If so, WRITE AT ONCE.

L. J. MUELLER FURNACE COMPANY

ESTABLISHED 1857

191 Reed Street **Milwaukee, Wis.**



OUR NEW

DE HAVEN ALL CAST FURNACE

Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace. Features:

Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

Write to-day for Catalog and Prices.

YOUNGSTOWN FURNACE & SUPPLY COMPANY

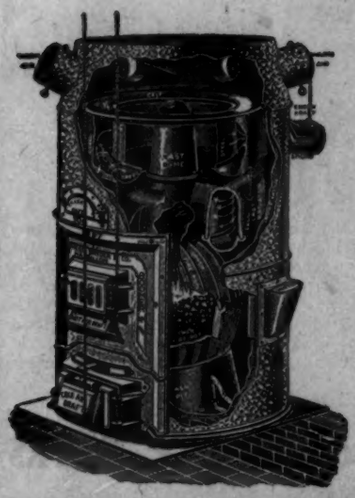
Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.

NILES, OHIO

Chicago Branch
218 East Lake Street

ROOD & McINTYRE
Kansas City, Mo., Southwestern Distributers

A Good Warm Air Furnace



Properly installed, will heat a house more satisfactorily and more economically than hot water, steam or stoves.

The foregoing statement can be proven if you will sell BOOMER FURNACES and get our ideas about installation.

No one has ever made any money out of light, cheap furnaces; 95% of the consumers will pay the price when value can be shown, after which, no trouble. Let your competitors have the other 5% and the trouble.

Be honest now, are you drifting into the 5% class, or are you going to handle BOOMERS? Get our attractive BOOMER proposition immediately.

The HESS-SNYDER COMPANY
Manufacturers :: MASSILLON, OHIO

The Distinctive Feature of The

Floral City Capitol Furnace

is the Dome or Body with the outer return flue or **HORSESHOE RADIATOR.** This dome is high enough to give an extra large combustion chamber and at the same time the furnace is low in height and adaptable for low basements.

No cheap or flimsy materials are used on any part of this furnace, and as a whole it is **Durable** and **Powerful** as well as **Economical.**

Write for Catalog Containing Complete Description of the CAPITOL FURNACE and Illustrating and Describing Other Heaters of Our Line.

Monroe Foundry & Furnace Co.
Monroe, Michigan

A Water Heater for Hot Air Furnaces & Stoves that Will Do the Work Successfully—

The "Holland Water Heater" is so constructed that it is placed in the fire-pot of the Hot Air Furnace or Stove in a manner that will not reduce the temperature of the gases that are necessary to form high combustion, consequently the rooms intended to be heated with Hot Water are made comfortable without absorbing any of the heat that should go unobstructed to the rooms to be heated by Hot Air. The result is that you will have additional heat and comfort without additional expense for fuel or extra labor.

Price will appeal to all.

Write us for circular and prices.

The Advance Radiator Company

Manufacturers of Steam and Hot Water Boilers and Radiators and Steel Pipe Hangers

SPECIAL QUANTITY PRICES TO FURNACE MEN

A Good Furnace Business

can be built up in any community if the correct furnace is offered. One like the

MONCRIEF

TOP RETURN FLUE WARM AIR

FURNACE

guarantees a dealer all of the most particular contracts in his neighborhood.

Its Simplicity, Durability and Economy together with serviceability are prominent and meritorious features. *Write for our Catalog.*

HENRY & SCHEIBLE COMPANY
825-29 Long Ave., N. W., CLEVELAND, OHIO
J. C. KIMMEL, 2314 East 15th St., Kansas City, Mo.
Western Sales Agent.

To THE AMERICAN ARTISAN: Jan. 22, 1909.

Up to date I have twenty-one letters from tinners answering my ad in your hardware journal and I think out of this lot with more to come, no doubt, I will be able to select a man. So please do not publish notice any longer and oblige.

J. C. Tanner.
Falls City, Nebraska.

Time Is Money!—Don't Waste It Pushing a Poor Article!

Schwab Side Wall Registers

We have avoided the defects of other makes and have embodied in their construction original features making them the most perfect Side Wall Registers now on the market

Noiseless
Simplest
Neatest.

R. J. Schwab & Sons Co.,
Milwaukee, Wis.

SELL THE Gilt Edge Furnaces

It takes more time to sell poor goods and gets you into trouble

GILT EDGE

is easy to sell and each job is a good advertisement.

Be the leader this year.

Sell the GILT EDGE furnaces

GET OUR CATALOGUES

R. J. SCHWAB & SONS CO.
MILWAUKEE, WISCONSIN.

Tin and Galvanized Iron Pipe and Fittings

Do you know that you can save many hours on a job by using

Fittings that Fit?

We make that kind and no other.

Try them and you will always use them.

R. J. Schwab & Sons Co.,
Milwaukee, Wis.

One of the Three Styles of the

All Cast Hero

...for...

Any Kind of Fuel.

... Has ...

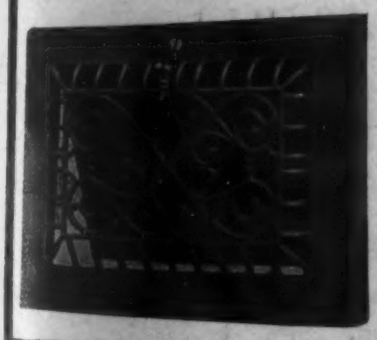
Solid Base,
Sectional Fire Pot,
Double Feed Doors,
Independent Grate Bars.

Catalog tells all about it.

CHAS. SMITH CO.
101 Lake Street. :: :: CHICAGO

Walworth Deflecting Wall Registers

FOR BASEBOARDS



Can be used on a "Double Head."

This register takes the place of the convex, and costs less money.

It takes up no room in the wall pipe, has a face of large open area, is made in standard sizes, fits regular stock sizes of fittings, is equipped with a wall frame and is attached to the pipe in the same manner as the ordinary valve register.

Our registers are made in THREE STYLES, Vertical, Horizontal, and Baseboard. We are also makers of the famous SEMI-STEEL Floor and Convex Register, all sizes and finish.

Let us quote you prices.

The Walworth Run Foundry Co.
2483 WEST 27TH STREET, CLEVELAND, OHIO.

FOR SIDE WALL

Come On You Hardware Men, You Assistants, You Clerks

Get Busy, Send in Your Photographs for

THE AMERICAN ARTISAN'S WINDOW DISPLAY COMPETITION

Time is flying, and all who enter must send their photos in by mail or express

Not Later than Noon, March 15, 1909

So you see you must act quickly. It would be a shame for you to let this competition close without entering it.

The cash prizes are worth an effort on any man's part and the returns that would result from a good window display are too great for any dealer to neglect going after.

Hurry now. You may be one of the lucky ones to share in the division of the

$50.00 **$50 in Gold for photograph and description of Best Window Display of Hardware.**

$25.00 **$25 in Gold for photograph and description Second in excellence.**

$15.00 **$15 in Gold for photograph and description Third in excellence.**

$10.00 **$10 in Gold for photograph and description Fourth in excellence.**

Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION
355 DEARBORN STREET, CHICAGO, ILL.

CONDITIONS—Each photograph must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

AWARD OF PRIZES—A Competition Committee of three, one of whom will be an expert window dresser and one an experienced hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions of same submitted in this competition.

IMPROVED HANDY FURNACE PIPE

is the result of our continuous and untiring efforts to place the **Best and Most Practical Furnace Pipe Made** upon the market. We know that we have been successful and all furnace men who have ever used it know it, too.

In the construction of **HANDY Pipe** we have considered the interests of **the Dealer, the Furnace Men** and the **Purchaser.**

For the Dealer we have made this pipe "fairly alive" with selling points that would appeal to the other two.

For the Furnace Men we have embodied features which would make his work lighter and simpler.

For the Purchaser we have used only the very best tin procurable both in weight and quality, and can offer a furnace pipe that will give the **best of service and perfect ventilation with a saving in fuel consumption.** Dealers should become familiar with the merits of this pipe. It will mean

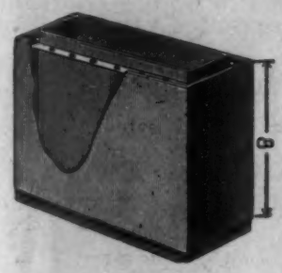
MONEY FOR THEM.

WRITE FOR OUR CATALOG TODAY

F. MEYER & BRO. CO., Peoria, Ill.

A Perfect Hot Air Furnace Pipe

EASILY AND QUICKLY ERECTED



The Stiffest and Best Machine-made Pipe on the Market, and **the only Sectional Furnace Pipe in which the inner walls form the cross-walls.**

There are no wings to pull out and no cleats to bend. The joints fit perfectly and there is positively no buckling

This Pipe is the result of twenty-five years' experience and effort toward perfecting a Sectional Wall Pipe and is a complete success.

WRITE FOR OUR LATEST CATALOG

The Michigan Safety Furnace Pipe Company

Corner Brooklyn and Abbott Streets, DETROIT, MICHIGAN

THE MONITOR RADIATOR

SEE

The Wonderful amount of radiating surface of this

Five Front Flue

Base Burner

1683 Square Inches

greater than that of any other stove.

The entirely original and correct principle of construction of this radiator allows dealers

TEN

Big distinctive selling points.

Write for Complete Descriptive Matter

THIS

is the the stove to make

1909

Your Banner Stove Year

The Agency will guarantee you

More Money

and your customers **greater satisfaction.**

Do not let your competitor get ahead of you but write for the agency at once.

Manufactured by

The Monitor Stove & Range Co.

Cincinnati, Ohio

JOBBING DISTRIBUTORS

MORLEY BROS., Saginaw, Mich., GREAT WESTERN STOVE & REPAIR CO., Minneapolis, Minn., MORLEY-MURPHY HARDWARE CO., Green Bay, Wis., PAXTON & GALLAGHER CO., Omaha, Neb.

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES INCLUDING CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
355 DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

CHICAGO, FEBRUARY 27, 1909.

IN ADJUDICATING a controversy between the United States Government and an importing firm of St. Louis, the Board of General Appraisers recently held that there was nothing in the various provisions of the tariff acts to prevent importers adding to invoice values for the purpose of obtaining lower duties in instances where high-class goods pay less duty than the low-grade variety. The merchandise in question was round steel wire, the invoiced value of which was less than four cents a pound. If the wire had been entered as invoiced it would have been subject to duty at the rate of two cents a pound under paragraph No. 137, but the importers added a sum on entry sufficient to make the value of the wire slightly more than four cents per pound. The New York appraiser in his official return of the wire approved the invoiced value, and declined to accept the advance made on the entry of the goods, alleging that the increased value added by the importers was more than the correct foreign value. The importers being dissatisfied then appealed to the Board of Appraisers for relief.

Hardware Market Not Affected.

NOTWITHSTANDING the widely published reports of price-cutting of steel during the past week, there is no indication of a weakening tone in the hardware market, which still maintains its wonted firmness. Structural material alone has been affected, and such articles as wire and nails, enameled ware, sheet metal house-furnishing goods, etc., are held at prices which have been ruling for weeks and months past. There is no indication whatever that goods of this character are going to feel the effect of the "open market." The situation in tin plate, as far as prices are concerned, is practically the same as it has been for some time past. The same may practically be said of sheets. There has been quite a slump in heavy plates, which have dropped $6 a ton, Pittsburg, from quotations of a week ago. The greatest reduction announced has been in structural steel shapes. These have been quoted at $1.60 per 100 pounds, and have been cut to $1.25 and $1.30, a reduction of $7 a ton.

During the period of active demand the United States Steel Corporation was able to maintain steel prices, and but for its restraining influence they might have advanced sky-high. For a year after the panic the Steel Corporation kept up prices, which aided very materially in preventing that ruinous demoralization of the iron and steel market which accompanied previous seasons of industrial depression. Until recently the independent steel producers have been adhering to the prices of the Steel Corporation, and there has been no competition. There is to be competition for a time at least, but it is not likely to be of the cut-throat kind. In the meantime the hardware market continues firm and is apparently unaffected by any of the developments in the steel situation at this time.

Germans Decry Two-Cent Postage.

"PRESERVE us from benefits of the 2-cent letter," is the cry now echoing from one end of Germany to the other, as a result of the intolerable inconvenience which the half-loaf German-American postal arrangements is imposing on everybody in correspondence with the United States. The conditions which have arisen are said to be comparable only to the days when it required from three to five weeks for a mail steamer to cross the ocean. Belated postal matter, which dribbles along at irregular intervals from ten days to a month, makes the German people forget that they are living in a Lusitania and Kaiser Wilhelm II. era, according to a recent dispatch, and forces the conclusion that the world has returned to a period when the Great Eastern held the blue ribbon across the Atlantic.

The American Association of Commerce of Berlin, in response to a bitter complaint, is reported to be considering ways and means for making a vigorous protest against the gross inadequacy of present facilities. The blame is placed chiefly on the German Postoffice Department and only secondarily on the German steamship companies.

It was on the initiative of the German Government that the Washington Government entered into the arrangement. Germany represented that her business men were pressing for the same advantages which the new Anglo-American 2-cent rate had conferred upon the English commercial world. Germany claimed, however, that it would be necessary in the interests of her meager postal exchequer to limit the 2-cent rate strictly to letters which could be carried abroad on steamers plying directly between New York, Hamburg and Bremen.

It was asserted that the cost of forwarding postal matter to or from English or French ports in order to catch the quickest steamer was prohibited. The result has been a chaotic delay in convenience all round. People of both countries who have other things to do than pore over "direct" German sailing lists have stamped letters with a 2-cent stamp and posted them, thinking that they would take some prompt course as heretofore prevailed with regard to 5-cent letters.

What has happened is that these letters have reposed serenely in American or German postoffices, as

the case may be, awaiting the next German steamer. Scores of instances have come to light where delays of four weeks have occurred. Business men's calculations have gone astray with serious consequences in numerous cases. The German steamship companies claim that they cannot afford during the winter to remedy the situation by running six-day boats.

That New Steel Invention.

THE Continental Steel Works of Jonas & Colver at Sheffield, England, is reputed to have discovered a process for making steel with many times the cutting power of any before in existence. When interviewed, B. W. Winder, director of the works and manager of the company, admitted that the Sheffield concern is about to put on the market a new steel which he says will place all other high-speed steels in the background.

"When the litigation with the Bethlehem Steel Company of America," says Mr. Winder, "was entered upon, Jonas & Colver set themselves to consider how to maintain their position if the judgment of the American courts should shut out high-speed steel made under the prevailing conditions. When high-speed steel first was produced it was water-hardened, but subsequent improvement resulted in water-hardening being abandoned for air-blast hardening.

"It was through this later feature that the Sheffield steelmakers found themselves in conflict with alleged American patents. Experiments conducted at the Continental Steel Works for a period extending over six months have resulted in the production of a new steel which is hardened in water and which shows a remarkable increase in hardness over all existing high-speed steel.

"The firm thus is placed in a position independent of the result of American litigation. The new steel can be annealed. No modern high-speed steel, in fact, has any advantage over it in matters of annealing, forging, and overheating."

An interesting experiment recently conducted by the makers is said to have showed that a tool made from the steel could be hardened seventeen consecutive times in cold water without showing signs of a crack. The steel could be hardened also in oil, paraffin, or even by an air blast. It could be used by any one accustomed to work with high-speed steels.

As to its cutting power, it is difficult to give comparative results, as so much depended on the quality of the material worked upon. On mild steels it probably is two or three times as much as the present tool. On hard material much better results were achieved—sometimes as much as six or seven times better than with ordinary high-speed steel.

Mr. Winder insists that a tool made of existing high-speed steel, working in hard material, has to be ground at least five times a day. Quite recently a similar cutter made from the new steel was put on and worked a day and a half with one grinding, and the report was it then was going on well indeed.

As to the comparative cost, Mr. Winder preferred to say nothing, although he admitted it is more expensive than the existing material.

Prof. Arnold of the Sheffield University School of Metallurgy, whose prophecy before the Royal Institute a few weeks ago that the best high-speed steel today was destined to become a back number, creating a sensation in England, was interviewed regarding the matter.

"From the point of view of a scientific man," said Prof. Arnold, "the phenomena exhibited by steel form an intensely interesting field for investigation. It is an absolute departure in metallurgy to have obtained a water-hardened steel which will work for a considerable time without putting the edge of the tool in a bright red glow when cutting hard metal.

"I have had this steel and the experiments leading up to it under my notice for a considerable time, and I am positive that I am justified in the statements made as to the value of the discovery. There is no comparison between the cutting powers of the new material and the existing high-speed steel.

"I prophesy that years hence every high-speed steel manufacturer in the country will be making this steel. Of course the secret cannot be retained forever. Even now, from information which has reached me during my recent visit to America, I believe our friends across the Atlantic are progressing on much the same lines.

"A conversation I had with a metallurgist of one of the leading American firms disclosed certain facts which led me to believe that they are experimenting much in the same direction. How far they have advanced I am unaware, but that they have even approached the position we have now attained I doubt."

In closing his interview Prof. Arnold pointed out that the Applied Science Department of Sheffield University had laid down at a cost of $150,000 what was probably the most powerful high-speed steel testing plant in the world. This was to be used for purely scientific experiments on steel made in the university steel works.

Trade Recovery Shown in January.

NOTHING discloses more clearly the recovery of confidence and the re-establishment of a truer balance in the markets of the world than the detailed record of commercial and banking failures in January, 1909, as compared with that of the corresponding month a year ago, when this country was just emerging from the crisis and crash of the last quarter of 1907, says *Dun's Review*. The contrast between January, 1909, and January, 1908, is greater than that of any other two Januarys since 1894; the percentage of decrease in the number of failures being even greater than that which occurred from January, 1897, to January, 1898.

The number of commercial failures in the United States during the month of January was 1,471, the amount of defaulted indebtedness being $14,008,085. Compared with January, 1908, when the total commercial failures were 1,949, with liabilities of $27,099,514, this is a decrease of 478 in number of failures and of $13,091,429 in liabilities. The number of failures was only slightly greater than the January average of the five preceding years while the total liabilities were about $2,000,000 less than the January average of the five preceding years. The liabilities were a trifle less than in December, and there were only two months, namely May and November, in

1908, when the total of liabilities was under that of January.

As was to be expected from the improved financial situation in the leading money markets of the world the record of banking failures is in striking contrast with that of January, 1908, when the panic was drawing to a close. The number of banks and other fiduciary institutions that failed during January, 1909, was only eight with liabilities of $510,526, comparing with 39 banking failures in January, 1908, having liabilities of $61,566,435. The manufacturing defaults numbered 294 with liabilities of $5,802,733, as compared with 402 in January, 1908, when the liabilities were $10,267,087. The same comparison in the case of trading defaults shows failures of 1,141 with liabilities of $7,196,828, as against 1,473 with liabilities of $13,484,007 last year. Other commercial failures numbered 36 with defaulted indebtedness of $1,008,524, as compared with 74 with an indebtedness of $3,348,420 in January, 1908, and 32 with liabilities of $764,045 in January, 1907.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

A merry party opening many bottles of champagne was what Hiram Percy Maxim's demonstration of his new gun silencer sounded like on February 8 at the Potter building in Park Row, New York City. Now and again, however, there came a report several degrees louder than the puffy pops, and the audience understood Maxim was just showing the difference between the old and the new way. But for the most part it was just that little puff-popping, and Maxim said most of the noise came from the impact of the bullets against the sand in the target. It was the first public demonstration which the inventor has given of the silent gun, which, with smokeless powder, leaves the marksman inaudible as well as invisible. He held it in the offices of his attorneys, and in the next room a typewriter kept pounding keys just in line with the course of the bullets. But Maxim's target did not let any of them pass. The guns which he used ranged all the way from the little .22 repeating rifle to the new .30 army weapons, and took in the high power Mausers and Mannlichers.

The silencer is a little black tube which screws on at the muzzle of the gun and has about twice the diameter of the barrel. The size and weight vary according to the caliber and power of the arm. For a .22 caliber rifle the tube is about four inches long and less than an inch and a half in diameter. For a .30 rifle the silencer is two inches longer, but has the same diameter. The weight is from six to nine ounces. First Maxim snapped his little repeating rifle at the target without the tube on the end. The noise wasn't pleasant to hear. Then he put on a silencer. The listener heard the hammer come hard against the cartridge, he saw a little puff, and that was all. Maxim tried short and long rifle cartridges, and the noise was not appreciably different. Then he worked up to high power guns. He let a .30 rifle go without the little black tube on the end, and after that everybody held his ears when time came for a shot without the silencer. With it in place, the noise was just the same as a champagne bottle popping, only not so pleasing. Finally he picked up a United States army rifle, which he described as the best in the world. The bullet has an initial velocity of about 2,700 feet a second, and when one hears it started on its course under normal conditions the impact upon the ear drum is severe. Yet with that little black tube in place the sound is scarcely audible. The theory upon which the silencer works Maxim described as being identical with that of the negative turbine. The gunpowder gases, as soon as they enter the silencer from the barrel of the gun, meet the spiral chambers in the interior of the tube and are set to whirling. The tendency of the whirling bodies is to fly out from the center, and inasmuch as the only means of exit from the silencer is near the center the gases are unable to escape until they have slowed down.

* * *

An amusing instance of typographical blundering occurred lately in a well-known newspaper. A paragraph read as follows: "Some time ago a flat in a not unfashionable quarter of the city was let unfurnished to 10 ants, who offered and paid a month's rent in advance." The explanation of this slip is almost as amusing as the misprint itself. It is a rigid rule of some printing offices that, while numbers below ten are spelled in full, all numbers higher must be in figures, to save space. It is, therefore, really very difficult for a compositor to spell "tenants," though "ninepins" is child's play to him.

* * *

Duncan Smith's little poem on "Ventilation" comes mighty near covering the entire "fresh air" situation. For the benefit of those of my friends who find health in the open window and those who do not, I present it.

VENTILATION.

BY DUNCAN SMITH.

"In regard to ventilation,
No two men can hit it off.
Some find health in open window;
Others swear they feed a cough;
Some insist that drafts are healthy,
Giving vigor to their breath;
Others fear the indoor breezes
Striking them will be their death.

Jones, he wants it nice and airy—
Window always raised a bit.
Brown, if 'tis the least bit drafty,
Has his regulation fit.
Gray would have the room so heated
Like an oven it would seem.
Benson's rugged style of comfort
Comes from turning off the steam.

In the morning bright and early
One applies his cherished fad,
Flinging open wide the window,
And the others all get mad.
'Goodness, gracious, shut the window!
In what sawmill were you born?'
Cries the man who counts drafts deadly
In the finest kind of scorn.

So they carry on their scrapping,
Each one of a different mind.
Each is striving for his hobby,
To the other's none resigned,
Pushing up and down the window,
Turning on and off the heat,
At the antics of his fellows
Kicking roundly with both feet."

News Siftings

The Pacific Stove & Range Co. of Portland, Ore., has been incorporated with a capital stock of $50,000 by H. R. Biersdorf, E. M. Hitchcock, M. A. Shirley, M. A. Perry and J. H. Mackenzie. Mr. Biersdorf is president and Mr. Mackenzie secretary of the company.

Herman J. Trenkamp of Schneider & Trenkamp Co., Cleveland, Ohio, has resigned as secretary of the American Stove Co., Louis Stockstrom of St. Louis, succeeding him. The office of secretary of the American Stove Co. will in future be located at St. Louis, instead of Cleveland.

W. Kinney, for some years treasurer of the Ohio Stove Co., Portsmouth, Ohio, is now connected with the Portsmouth Stove & Range Co., representing the latter concern in Illinois and Indiana. Marvin Miller, Ashland, Ohio, is now a traveling salesman with the Portsmouth Stove & Range Co.

The Wrought Iron Range Co., of St. Louis, Mo., has brought suit in the Circuit Court at Princeton, Ind., against Edgar A. Mauck, county treasurer, asking that a temporary restraining order of the court be made permanent. Last fall the treasurer of the county made a demand on the company for $10 a day license fee as a transient merchant. Payment being refused the property of the company was levied on and advertised for sale. Five days after the levy the company obtained from the Circuit Court a restraining order enjoining the county treasurer from selling the goods. The company now asks that the injunction be made permanent, the matter having been taken under advisement by Judge Welborn.

THE 1909 CHAMPION INTERCHANGEABLE RANGE.

The Champion Steel Range Co., 3950 W. Twenty-fifth St., Cleveland, Ohio, are distributing a neatly gotten up booklet completely describing and illustrating their 1909 Champion Interchangeable range. This new range is described by the manufacturers as "The Maid of the Kitchen." "All you do," says the booklet, "is to direct, and the Champion Interchangeable range will show you results most pleasing and satisfactory." This range burns any fuel—gas, coal or wood—and produces the same satisfactory results as an individual range. It takes but a moment to change the range from gas to coal consumption without the removal of a burner. The gas supply may be low or break in the main line, but with the Champion Interchangeable range the burners may be dropped almost instantly and the range is ready for coal or wood. Waste paper or garbage can be burned with equal facility. The body of this range is made of blue polished steel, asbestos lined. The best of cast iron is used in the top and fire linings. It is provided with an extra large fire-box, sectional back walls, and a corrugated front lining, which prevents warping. The hot blast flue has a slide opening for air at the end of the range and opens into the ash-pit at the other end, heating the air before it enters the fire-chamber. The nickel ornamentations are of superior quality silver nickel, with no liability to peel or tarnish. When writing The Champion Steel Range Co. for the booklet describing this new range, kindly mention THE AMERICAN ARTISAN.

PATENTED DESIGN FOR A STOVE.

A patent on an ornamental design for a stove was on February 16 granted to James C. Hosford, Malden,

Newly Patented Stove Design.

Mass., who has assigned it to the Magee Furnace Co., Boston, Mass. The application was filed on September 14, 1908, the term of the patent being seven years.

SOME FACTS ABOUT "JEWEL" GAS RANGES.

George M. Clark & Company, Chicago, division of The American Stove Company, are sending out a circular stating that a few months ago they obtained actual figures showing that on 8,000 "Jewel" all steel gas ranges placed in six cities in the last seven years, the cost of repair parts averaged a little over one-half cent per range per year. This record looked so good to George M. Clark & Company that they advertised it, and the wide-awake manager of one of the biggest and most progressive Western gas companies decided to check up the figures. After doing so, the gas man advised George M. Clark & Company that his cost of maintenance on their steel stoves was a little over two cents per range per year, including labor, and on repair work labor is about two-thirds of the total cost. "Do not these figures justify our claim that our cost of maintenance is phenomenally low?" say George M. Clark & Company, in concluding their circular. When writing for catalogue and prices, kindly mention THE AMERICAN ARTISAN.

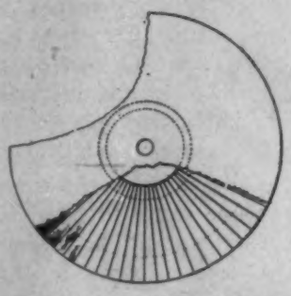
THE "PRINCESS" STEEL RANGE.

The Allen Mfg. Co., Nashville, Tenn., in putting on the market the "Princess" steel range, state that they have departed from the worn-out traditions of range building and constructed a simple, beautiful range, full of new, practicable improvements in construction. In the construction of this range the Allen Mfg. Co. state that the best quality of Bessemer cold-rolled range steel is used throughout. The body is made of heavy

18-gauge steel and in the oven is used extra heavy 16-gauge steel. The castings are made in the Allen Mfg. Co.'s own foundry from the best grades of Birmingham pig iron, blended in mixture to obtain the toughest and strongest castings. The fire-box linings, both front and back, are made in three sections, the fire back weighing 20 pounds. An important feature of this range is that the collar pipe does not enter the warming closet, all soot and dust thereby being avoided, and instead of the food drying, when placed inside the warmer, it retains its moisture and freshness. This arrangement gives more room inside the warmer and on the top of the stove. The back of the warmer also protects the face of the operator from the intense heat radiated by the collar pipe. The Allen Mfg. Co. use highly finished nickel-plated steel trimmings entirely, for the "Princess" range. When writing for prices kindly mention THE AMERICAN ARTISAN.

A NEWLY PATENTED BUFFING OR POLISHING WHEEL.

The accompanying illustration shows a buffing or polishing wheel, the invention of Frank M. Levett of Zucker & Levett & Loeb Co., 516-524 W. Twenty-fifth St., New York City. Mr. Levett filed the application for the patent on April 27, 1908, and it was granted on February 9. The buffing or polishing wheel is made of



Buffing or Polishing Wheel.

continuous strips of bias cut woven fabric material forming superimposed layers of woven material to make a wheel, the peripheral edge of which presents a continuous bias cut surface. The strips are gathered around the hub or center of the wheel to form a disk, after having been passed through an adhesive substance.

TO ASK LOWER DUTY ON MICA.

Importers and users of mica are hopeful that Congress in framing the new tariff bill will lower the duty now collected on this product. The duty is practically prohibitive and amounts to nearly 4,000 per cent on the value of the product. It is said that there are only one or two mica mines of any consequence in this country, and that, therefore, the prohibitive duties are unnecessary. When the question of the classification of the mica came before the Board of Appraisers in 1900 for adjudication, General Appraisers Fischer and Howell, constituting a majority of the sub-board, brought in a verdict in favor of the government's contention that the merchandise is dutiable either as being unmanufactured at the rate of six cents a pound and 20 per cent ad valorem, or else as a finished product, at 12 cents a pound and 20 per cent ad valorem.

The decision was not unanimous, as Judge Somerville, the third member, filed a dissenting opinion in which he stated that the importers' claim for duty as "waste not specially provided for," with a tariff tax of 10 per cent, was equitable and should be sustained. The point made by Judge Somerville will probably form the basis for the relief to be asked from Congress in framing a new law.

TRADE-MARK OF THE MT. PENN STOVE WORKS.

The accompanying illustration shows the registered trade-mark of the Mt. Penn Stove Works, Reading, Pa., which, the concern states, is a guarantee that their stoves, ranges and furnaces are made from original patterns. The "Penn" line of stoves, ranges and furnaces are well known to the trade and are fully described and illustrated in catalogue No. 12 of the Mt. Penn Stove Works. The "Penn Esther" cabinet base range is made with right or left hand oven and fitted with duplex grate. It is made in numerous styles and sizes and is one of the best known ranges now on the market. The "Penn Glory" is also a very popular range. The heating stoves of the Mt. Penn Stove Works include the "Penn Diamond," the "Penn Baron," the "Penn Fairy," the "Penn Opal," the "Penn Air-Tight," the "Penn Oak," the "Penn Ruby," the "Penn Pearl," the "Penn Coin," "Dora," "Vida," "Magic," and others. "Penn Perfect" furnaces are known for their reliability and efficiency, as are also the "Penn Comfort" line of furnaces. When writing the Mt. Penn Stove Works for catalogue kindly mention THE AMERICAN ARTISAN

Registered Trade-Mark of Mt. Penn Stove Works.

CHANCE TO SELL AMERICAN STOVES IN WALES.

Consul Jesse H. Johnson, of Swansea, reports that American stoves would find a ready market in Wales if a proper effort should be made. He writes:

"Attention is called to the fact that although Swansea is in the very heart of the anthracite coal field, stoves suitable for burning this hard coal are conspicuous by their absence. I would emphasize the fact that American stoves, if properly introduced, would find an excellent market here, and once established would expand with the sale of the coals. This is a branch of industry that is neglected here. Some years ago an enterprising American firm made an effort to introduce stoves in Swansea, but I still maintain that they must be introduced by direct representatives who are expert at showing the advantages of American goods, and the appointment of local agents should at all times be quite a supplemental affair. At present many thousands of homes here burn anthracite coals in open grates."

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 40 to 45 inclusive.

The Southern Shovel Mfg. Co., of Gadsden, Ala., a newly incorporated concern, has let the contract for the erection of a plant.

The Illinois Metallic Novelty Co., of Chicago, has been capitalized at $3,000 by George E. Mueller, J. G. Kellogg, and W. H. Geindt, Jr.

The Chicago Metal Supply Co., of Chicago, has been organized with a capital stock of $10,000 by E. F. Parr, L. L. Sorup and A. D. Mackey.

The Staten and King Hardware Company of Florence, Ala., has been incorporated with a capital stock of $25,000 to conduct a wholesale and retail hardware business.

The K. B. Mathes Co., Batavia, N. Y., has been chartered with a capital stock of $70,000, to manufacture metal goods, etc., by Kirke B. Mathes, A. V. Mathes, L. D. Mathes and others.

The Standard Wire Co., New Castle, Pa., manufacturers of wire specialties, has established a tinning department in connection with its plant, enabling it to tin shapes up to thirty inches long.

The Castile Hardware Company, Castile, N. Y., has been capitalized at $12,000, to manufacture hardware supplies, by Mortimer N. Cole, Wm. B. Rider, Geo. H. Bush and Robert Holmes, Jr., all of Castile.

The National Wrench Co. of New York City, has been organized with a capital stock of $150,000 to manufacture wrenches, nippers and tools, by W. C. Lawson, William B. Carswell and John P. Condon.

The Quinn Wire & Iron Works, formerly of Jefferson, Iowa, has erected a new plant at Boone, Iowa, for the manufacture of hardware specialties, etc. The concern has been incorporated with a capital stock of $50,000.

The Standard Ventilating Co. of New York City has been incorporated with a capital stock of $15,000 to manufacture hardware, etc. The incorporators are: Isaac L. Adelman, Clifford M. Worth and U. D. Everts.

At the meeting of the stockholders of Henry Disston & Sons, Philadelphia, Pa., to be held on March 19, authorization of an increase of $350,000 capital stock will be voted on, the increase to be used in extending the plant.

The Nonpareil Metal Weather Strip Co., Brooklyn, N. Y., has been organized with a capital stock of $2,000 to manufacture weather strips, wire and fly screens, by David J. Ramazzetti, William E. Marvin and Louis W. Slocum.

The Turnbull-Smith Co., Syracuse, N. Y., has been incorporated with a capital stock of $25,000 to handle hardware and hardware supplies. The incorporators are: Arthur H. Turnbull, William H. Smith and George F. Park, all of Syracuse.

The Charles E. Smith Company, New York City, has filed articles of incorporation with a capital stock of $1,000 to manufacture hardware and hardware supplies. The incorporators are Charles E. Smith, Matilda Smith and Charles L. Lorch, all of New York.

A fire at the Wrightsville Hardware Company's plant at Wrightsville, Pa., on February 19, did damage estimated at $30,000. The origin of the fire is not known but is thought to have been caused by an explosion in one of the departments.

The Orange Supply Co., East Orange, N. J., has been incorporated with a capital stock of $125,000 to handle hardware, tinsmith's, plumber's and factory supplies. The incorporators are: Charles R. Meehan and Peter Broderson, East Orange, and Thomas J. Lee, Jr., Newark.

The G. H. A. Mfg. Co., 5918 South Halsted St., Chicago, have put on the market a foldable steel square. When open it is perfectly rigid and square, while it may be folded up very conveniently. The G. H. A. Mfg. Co. have recently issued a circular illustrating this square.

William Barry of Oswego, N. Y., inventor of the Barry stamping machine, has been granted two United States patents on mail distributing apparatus. A company will be formed to put the machines on the market. Mr. Barry's patent attorney was Hubert E. Peck, 623 F. St., N. W., Washington, D. C.

T. J. Guinea, a traveling salesman for a Chicago hardware firm, died at San Francisco, Cal., on February 20 from a bullet wound which he received two days before. The shooting was the result of a quarrel between Guinea and the clerk of the Union Hotel, the latter shooting the hardware man through the arm.

Elias Kosches, dealer in house furnishing goods, who conducted three stores in New York City, has made an offer of settlement to his creditors at 25 cents on the dollar, payable in notes at three and four months. Charles L. Cohn was appointed receiver for the firm, the liabilities of which were reported to be $40,000.

The Hurty-Simmons Hardware Company of Minneapolis, Minn., will in future be known as the Simmons Hardware Company, application to change the name of the concern having been duly made to the state authorities. A few months ago F. W. Hurty retired from the business, E. E. Stewart succeeding him.

At the recent convention of the West Virginia Retail Hardware Association the following officers were elected for the ensuing year: President, W. A. Vance, Clarksburg; first vice-president, R. H. Smith, Ronceverte; second vice-president, J. T. Loughney, Sistersville; secretary-treasurer, Leslie Hawker, Shinnston.

The hardware firm of Lorick & Lowrence, Columbia, S. C., has become a member of the Southern Hardware Jobbers' Association. Since admittance into the association the Columbia concern is better prepared to handle a larger volume of business and in a better position to sell to the retail trade in that section of the country than ever before.

The partnership which has existed for several years between Bernard W. Payne and Morton McDonald,

under the style of The Payne-McDonald Hardware Co., of Columbus, Ohio, has been dissolved, Mr. Payne retiring. The business will be conducted under the old name. Mr. Payne has been connected with the hardware business for over thirty years.

"Metal Statistics," a handbook containing 123 pages and issued annually by the *American Metal Market*, 81 Fulton St., New York, gives the usual figures concerning copper, tin and other metals. Iron and steel products are treated statistically in a thirty-one page section of the book. Other pages relate to the production of finished rolled iron and steel, bar iron prices, sheet and tin plate prices, nail production, etc. The handbook will be found particularly useful for reference.

At the annual convention of the Nebraska Retail Hardware Association held at Omaha on February 16, 17, 18 and 19, these officers were elected: President, E. S. Hayhurst, Loup City; first vice-president, W. C. Klein, Milford; second vice-president, A. A. Lawson, Hastings; third vice-president, C. B. Diehl, Stratton; secretary, J. Frank Barr, Lincoln; treasurer, H. J. Hall, Lincoln; executive committee, G. H. Wycoff, one year, Madison; Albert Degner, three years, Norfolk.

Iwan Bros., South Bend, Ind., are distributing a blotter on which they announce that their improved machinery and increased warehouse and shipping facilities in their new location are enabling them to get Iwan patent post hole and well augers, tile grain cleaners, sickle edge hay knives, etc., to their customers quicker than ever before. The increasing business of Iwan Bros. necessitated their building a new factory at South Bend. When writing Iwan Bros., kindly mention THE AMERICAN ARTISAN.

At the recent annual convention in Philadelphia of the Pennsylvania Retail Hardware Association the following officers were elected for the ensuing year: President, D. E. Hibner, DuBois; first vice-president, R. L. Davis, Oakdale, Md.; second vice-president, F. C. Thompson, Wright, Pa.; third vice-president, J. F. Howe, Freedom, Pa.; secretary-treasurer, W. P. Lewis, Huntingdon, Pa. Philadelphia was selected for the holding of next year's convention. During 1908 the membership of the association increased from 94 to 448.

Her Ideal Dust Pan Co., 134 Lake St., Chicago, are distributing a folder describing "Her Ideal" Dust Pan, which, the company state, "is saving a million backs." The user of "Her Ideal" dust pan places the left foot on the lever clamp which forces and holds the edge of the pan firmly against the floor. No dust can get under the pan and no time is lost in repeated sweepings. Both arms are free to direct the broom into corners and around the furnishings. When the pan is lifted by the handle the dirt falls into the hood. "Her Ideal" dust pan is made of steel and is guaranteed to last a lifetime.

At a recent meeting of the executive committee of the Michigan Retail Hardware Association held at Saginaw, Mich., it was definitely decided to hold a hardware exhibit while the annual convention of the association will be in progress at Saginaw on August 11, 12 and 13. The committee which will have charge of this exhibit comprises A. Schoeneberg, John Popp and Ernest Reichle, all of Saginaw. The Hotel Vincent was selected as the headquarters for the convention and it was decided to issue a souvenir program to be sent out to all the hardware dealers in the state, prior to the meeting. The Michigan association will send a full delegation to the National convention at Milwaukee, the names of the delegates to be announced later.

At the recent annual convention of the New York State Retail Hardware Association held at Rochester, N. Y., these officers were elected: President, A. E. Towne, Saratoga; first vice-president, A. E. Stewart, Fort Plain; second vice-president, C. E. Wethey, Port Byron; treasurer, F. E. Pelton, Herkimer; secretary, J. B. Foley, Syracuse. These directors were elected: L. J. Ernst, Rochester; George W. Rockwell, Horseheads; W. J. Hoyt, Wellsville; Charles J. Fix, Buffalo; J. F. Williams, Baldwinsville; L. G. Mattison, Newark; J. G. Ferres, Johnstown; A. R. Grant, Syracuse; Charles W. Young, Elmira; John H. Bradish, Batavia; A. F. Miller, Olean; T. W. Stevens, Oneonta; F. J. Howk, Owego; Charles E. Eisele, Buffalo; William Fowler, White Plains.

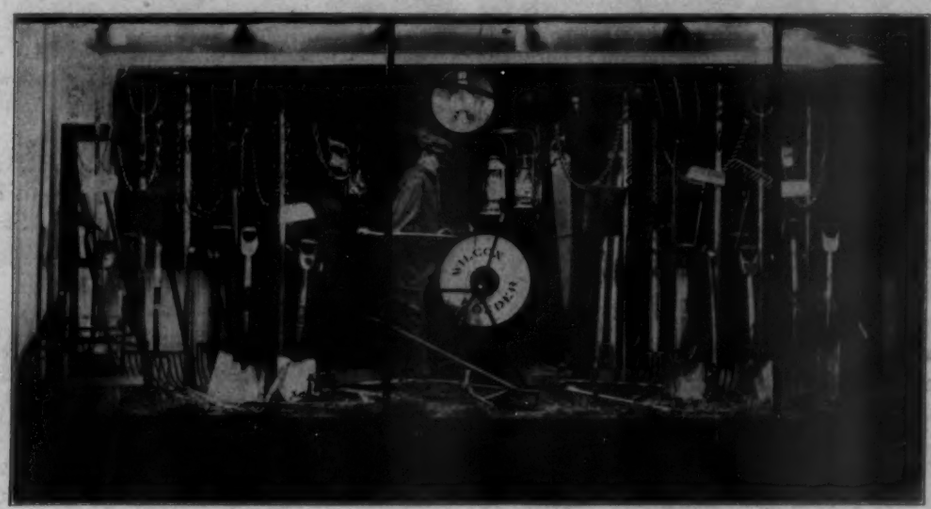
CONVENTION OF KENTUCKY RETAIL HARDWARE AND STOVE DEALERS' ASSOCIATION.

The Kentucky Retail Hardware and Stove Dealers' Association, held its annual convention at Louisville, Ky., on February 23-25, with President J. E. Grubbs of Winchester in the chair. The convention was attended by about 150, floods and wash-outs keeping many away, the sessions being held in the Red Room of the Seelbach Hotel. Papers were read by Mr. Hall of the Simmons Hardware Co. of St. Louis, on "Salesmanship"; by ex-Secretary Lower on "Benefits of Association Membership"; by C. A. Peck, secretary of the Wisconsin Retail Hardware Association, on "Savings on Fire Insurance," and by Mr. Frederick of Owensboro on "Our Competitors". All the addresses were received with close attention. Secretary J. M. Stone of Sturgis read an encouraging report. Mr. Stone seems to be the right man in the right place. The Question Box in charge of B. J. Durham of Danville elicited good discussions. Charles H. Williams, Streator, Ill., vice-president of the National association, attended the opening session of the convention, leaving on Tuesday evening for Columbus, Ohio, to attend the Ohio convention. The banquet held on the evening of February 24 proved to be one of the greatest attractions. The hardware exhibition was also held in the Seelbach Hotel. The Coldwell Lawn Mower Company gave away eleven of their machines and the exhibits of the American Wringer Co. and the American Steel and Wire Co. attracted much attention. It was the consensus of opinion that Vice-President George A. Cubbage of Lietchfield would be elected president of the association.

For the up-tomorrow-merchant, a most important thing in the day's work is his advertising.

A GOOD DISPLAY OF FARM IMPLEMENTS AND GARDENING TOOLS.

The farm implement and garden tool display made by Albert Dines with William Henry & Co., Fort Worth, Tex., and entered in THE AMERICAN ARTISAN'S hardware window display competition, received honorable mention from the judges of the contest. In the center of the display a dummy was shown standing astride a grindstone, operated by an electric motor. Shovels, rakes, hoes, forks, lanterns, etc., were among the articles exhibited. This window, while simply constructed, is said to have been a winner for William Henry & Co., the figure in overalls and the floor covered with green excelsior adding to the realistic effect.



Honorably Mentioned by the Judges in THE AMERICAN ARTISAN'S Hardware Window Display Competition. — Submitted by Albert Dines, with William Henry & Co., Fort Worth, Tex.

$100.00 IN GOLD FOR HARDWARE WINDOW DISPLAYS.

When your windows are artistically dressed your store presents an air of prosperity, and it is the prosperous and hustling merchant whom people patronize these days, for they judge the store and the way it is conducted by what they see from the outside. If you would get your share of the business you must keep your windows neatly trimmed at all times. The better the display you make the more business you will do. THE AMERICAN ARTISAN is offering $100.00 in gold for photographs, with descriptions of window displays of hardware. Bear in mind that the contest will close at noon on March 15.

A list of prizes to be awarded and the conditions governing the contest follow:

The Prizes.

The prizes will be awarded as follows:

First Prize, $50 in gold for the best photograph and description received of a window display of hardware.

Second Prize, $25 in gold for the photograph and description second in excellence.

Third Prize, $15 in gold for the photograph and description third in excellence.

Fourth Prize, $10 in gold for the photograph and description fourth in excellence.

The Conditions.

The conditions of the competition are as follows:

The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than March 15, 1909. Address all photographs to THE AMERICAN ARTISAN Prize Competition, 355 Dearborn street, Chicago, Ill.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be put upon a sealed envelope containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

Award of Prizes.

A competition committee of three will be appointed, one of whom will be an expert window dresser and one an experienced hardware man. This committee will pass upon the merits of all photographs and descriptions received, without knowing the names or addresses of the senders, and will decide the winners of the contest.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions submitted in this competition.

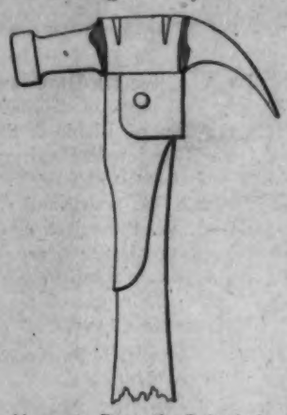
LIGHTNING ROD SUPPLIES OF A. C. DALLAS & SON.

A. C. Dallas & Son, Inc., Room 57, 163 Randolph street, Chicago, are distributing a catalogue illustrating and describing their extensive line of lightning rod supplies. They advise that their trimmings are carefully and well made and will bear favorable comparison with the best. All their goods are guaranteed to be of the highest grade. Their copper cable rod is manufactured from pure Lake Superior copper of the highest standard of conductivity, 99 per cent guaranteed. Their shell points are made from pure copper seamless tube with a smooth hard finish, bright and clean. They fit closely over the ⅝-inch tube and the polished points are finished with a superior grade of imported lacquer, that they may preserve their finish and greatly increase their durability. In order to better withstand the action of the elements, A. C. Dallas & Son specially finish the surface of their pure cop-

per tubes, making them smooth and free of small holes and spots, bright and clean, thus adding greatly to the value of the tube. When writing A. C. Dallas & Son for prices, kindly mention THE AMERICAN ARTISAN.

A NEW TYPE OF HAMMER.

Herbert Symonds, East St. Louis, Ill., was on February 9 granted a United States patent on a hammer, shown in the accompanying illustration. The application for the patent was filed on March 14, 1908. In this hammer are combined a head having an eye flared at its top, a handle, and a tubular clamping member adapted to extend through the eye of the hammer head



Hammer Recently Patented.

and formed of a single sheet of metal folded upon itself and provided with slots at its upper end. The slots are arranged transversely to the longitudinal axis of the eye. Wedges are adapted to be driven into the slots at the upper end of the handle to force the clamping member to conform to the flare of the eye in the head of the hammer. A bifurcated clenching nail is adapted to be driven through the tongue and adjacent wall of the clamping member to secure the clamping member in place upon the handle.

WHAT OTHERS SAY OF "THE ADVERTISING MANUAL."

From "Farm Implement News," Chicago.

"THE ADVERTISING MANUAL is the title of a book on advertising issued by THE AMERICAN ARTISAN, Chicago. It is a compilation of all kinds of display advertisements as they actually appeared in different newspapers, each coupled with a commentary on its good and bad points."

From "Stoves and Hardware Reporter," St. Louis, Mo.

"THE ADVERTISING MANUAL is a treatise on the subject of advertising just published in book form by Daniel Stern, Chicago. The work contains nearly three hundred pages and is profusely illustrated. The advertisements appearing therein are actual announcements of hardware dealers which have appeared in local papers throughout the United States, and criticized in THE AMERICAN ARTISAN from time to time. Repeated requests have induced the publication of these in book form, presenting a fund of information on the subject of advertising calculated to enable the retail dealers to obtain the best results from newspaper advertising, and which should prove of benefit to students of that class of work. The book retails at $3.50."

From "The Tradesman," Chattanooga, Tenn.

"The purpose of THE AMERICAN ARTISAN ADVERTISING MANUAL is to present to the retail merchant such information on the subject of advertising as will enable him to obtain the best results from his newspaper advertisements. Retail dealers are today doing more advertising than they have done heretofore, and their advertisements now show a marked improvement over those of a few years ago, and the improvement is as yet in its infancy. The reason is obvious. The better the get-up and arrangement of an advertisement, the greater will be the returns that it will bring. If the average hardware or stove dealer, to whom this book should prove of especial benefit, had some assistance in the preparation of his advertising copy, he would be able to prepare advertisements at all times that would be of the business-getting kind. The advertisements in the work criticised and commented on are actual announcements of hardware dealers, which have appeared from time to time in local papers throughout the United States."

FACTS ABOUT NAILS.

It is supposed that the first nails were the thorns of the locust tree, some of which are eight inches long and as hard as iron. The use of fish bones was common before Noah's time, and in all probability the first of the commodores built his raft scow with them. They were as long and strong as our metal string bolts. Wooden pins were employed also, being driven through holes burned by hot irons before there were crude augurs to bore them.

We smart Americans were cutting iron nails by machinery 100 years ago at the rate of 100 a minute to the machine. The great wire nail industry started in 1886 and is now of colossal importance. Before cut nails were introduced all nails were hand forged.

We should have a hard time trying to get along without nails. They are so common that, like many other articles in common use, our makers of encyclopedias regard them as unworthy of mention. In the latest specialized work (seven large volumes) on carpentry and building there is nothing about nails.

Is anything of more importance than a proper selection of the little bits of metal that are supposed to bind securely together all the lumber used in the construction and decoration of a house?—*Exchange.*

THE GRIFFIN MFG. CO. OPEN A CHICAGO OFFICE.

The Griffin Mfg. Co., 1500 Cherry St., Erie, Pa., manufacturers of butts, hinges, shelf brackets, door bolts, etc., have opened an office at 85 Lake St., Chicago, with R. M. Lee as manager. The company has been enjoying a large business in the western and middle western states, and with the establishment of a branch house at Chicago they are now in a better position than ever to supply the steadily increasing demand for their well-known line of hardware specialties. The Griffin Mfg. Co. have put on the market a line of im-

proved door hangers made entirely of steel, with the exception of the wheels, which have become very popular with the trade. In such an important distributing point as Chicago there is every reason to believe that the company will increase their western business very materially.

DOUBLE-END ADJUSTABLE "S" NUT AND PIPE WRENCH.

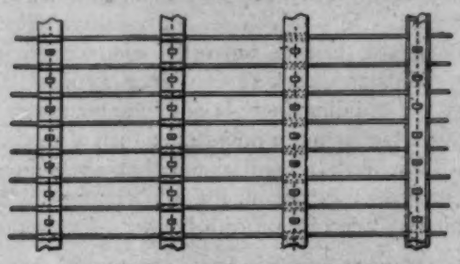
Bemis & Call Hardware & Tool Co., Springfield, Mass., are putting on the market the No. 51 Double-end Adjustable "S" Nut and Pipe Wrench, shown in the accompanying illustration. This wrench is made in a 6-inch size, to open a nut up to ¾-inch and a pipe ⅛ to ½-inch. It is made from the same high-grade materials as the company's well-known Nos. 48

Double-end Adjustable Wrench.

and 50 adjustable "S" wrenches. It will be found a handy tool for the pocket or tool kit. The No. 51 is a combination of the Nos. 48 and 50. The company states that a wrench of this character has never before been manufactured. For automobile and gas-engine purposes they think it will have a large sale. When writing for descriptive literature and prices kindly mention THE AMERICAN ARTISAN.

PATENTED WIRE STRUCTURE FOR RAT TRAPS.

In the accompanying illustration is shown a wire structure for which a United States patent was, on February 16, granted to Thomas G. Melish, of Cincinnati, Ohio, who has assigned it to The Bromwell Brush & Wire Goods Co., Cincinnati, manufacturers of rat traps, etc. The application for the patent was



Wire Structure Recently Patented.

filed on October 19, 1907. As illustrated, the wire structure comprises suitably spaced mesh wires and a series of intersecting double strips of sheet metal. The mesh wires are held at suitable intervals apart between the double strips, one of the strips having a series of suitably spaced transverse slots and the other strip having a series of correspondingly spaced integral tongues adapted to register with and engage the slots and clenched on the outer face of the strip containing the slots for uniting the strips and clamping them firmly over and in suitable engagement with the mesh wires. A series of transverse seats or depressions are made in one or both of the double strip members and intervening the respective slots and tongues thereof. When writing The Bromwell Brush & Wire Goods Co., kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

Sherman, Tex.—The Leslie-Taylor Hardware Co. has been incorporated with a capital stock of $30,000 by William Leslie, C. W. Taylor and E. M. Anderson.

Rockford, Ill.—W. H. Patten will engage in the hardware business here.

Marysville, Cal.—G. L. McIntosh and J. O. Gates have engaged in the hardware business.

Ironton, Ohio.—The Central Hardware Co. has been incorporated with a capital stock of $17,000. The company also took over the business of Hugh Russell.

Mayville, N. D.—The Central Hardware Co. has been incorporated with a capital stock of $35,000. This company is the successor to the firm of Bjelde & Skalet.

Grants Pass, Ore.—The Jewell Hardware Co. has been incorporated with a capital stock of $25,000. The incorporators are: L. L. Jewell, A. M. Jewell and A. C. Hough.

Churubusco, Ind.—J. W. Burwell & Sons and John W. Smith, both in the hardware business, are interested in the organization of a new hardware company with a capital stock of $25,000.

BUSINESS CHANGES.

Binghamton, N. Y.—Frank O. Bowen has purchased the hardware store of Orlando Matteson.

Ashland, Ky.—S. Coburn has sold his hardware stock.

Plymouth, Neb.—Louis Nispel has purchased the hardware business of William Nispel.

Melvin, Iowa.—F. J. Drilling has succeeded C. E. St. John & Company in the hardware business.

West Brooklyn, Ill.—Henry L. Gehant of the firm of Bernardin & Gehant, hardware dealers, has sold his half interest to Theo. B. Barlow, and in future the firm will be known as Bernardin & Barlow.

Weldon, Ia.—C. E. Bodley has disposed of half an interest in his hardware store and in future same will do business under the name of George Lowman & Co.

Alexis, Ill.—W. A. McKnight is the successor to McKnight Bros., hardware dealers.

Binghamton, N. Y.—J. K. Innes has sold his stock of stoves and ranges to McManamy & Rodman.

Van Horn, Ia.—W. E. Kirkman and F. E. Young have purchased the hardware store of The Schroeder Brothers.

Pekin, Ill.—James Strickfaden of the Pekin Hardware Co. has disposed of his interest to Philip Hoffman and E. R. Peyton, who will conduct the business under the old firm name.

Brownwood, Tex.—The Weakley Clingman Hardware Co. amended its charter, changing its name to Clingman-Timmins Hardware Co.

Marion, Ind.—McGrew & Bury have purchased the hardware business of Ikenberry Bros.

Charlotte, Mich.—The hardware firm of Bare & Gillette has dissolved partnership, T. D. Gillette becoming the sole proprietor.

MISCELLANEOUS.

Jefferson, Ia.—The Brandon hardware store has been damaged by fire.

Texhoma, Okla.—Pottinger Bros., hardware dealers, suffered a loss by fire.

Brainerd, Minn.—A. L. Hoffman & Co.'s hardware store damaged by fire.

Penn Yan, N. Y.—The hardware warehouse of Frederick Plaisted was burned.

Kewanee, Ill.—Johnson Bros., hardware dealers, have added a repair shop to their store.

Indianapolis, Ind.—The Oats Hardware Co. recently suffered a loss of $1,500 by fire. A customer was striking a match when the head flew off and struck the celluloid handle of a fishing rod, thereby causing the fire.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The "special sale" advertisement of A. S. Hellyer's Sons Co. of Doylestown, Pa., is, on the whole, a satisfactory one. The ad is laid out in good form and shows up well. There are, however, one or two misspellings which are indicative of carelessness on the part of the proofreader. "Tin" in one place is incorrectly spelled "tim," and "cuspidor" is ridiculously spelled "cuspadore." Apart from this there is very

little in the ad to criticize. It appeared in the *Doylestown* (Pa.) *Daily Intelligencer* of a recent date and occupied 6¾ inches of space, two columns wide.

* * *

Success in business is made from a satisfied customer. Truthful advertising is the greatest factor in satisfying a customer.

* * *

The advertisement of the W. W. Woodruff Hardware Co. of Knoxville, Tenn., shown herewith, is, on the whole, a fairly good one, though it is not without its weak points. The display line at the top, indicating that it is the purpose of the advertisement to call the attention of the public to the articles which the company offers as suitable Christmas gifts, is lacking in prominence and does not stand out well. A display line such as this, which is really the pith of the entire ad, should be of such a character as to be the first thing to strike the eye and attract the attention of the reader. Although there is a goodly amount of white space distributed throughout the ad, the bottom section presents a crowded appearance, in that there is not sufficient space between the company's name and the last line, in which "Quick Meal" ranges are mentioned. In other respects, however, the ad is not subject to much criticism. It appeared recently in the

Knoxville Sentinel, and occupied six inches of space, three columns wide.

* * *

The advertisement of the Atwater Hardware Co. of Leavenworth, Kan., is a fairly good one, though the ad would have looked much better had the rules on either side of the cut and below the display line been dispensed with. Rules of this kind are now obsolescent and there is very good reason why they should be. They do not enhance the appearance of the ad, but, on the contrary, tend to congest it. Had the double rule beneath the top display line been eliminated, the lines directly above and below the company's

name at the bottom of the ad would not have to be so close to the other matter, and would stand out more conspicuously. "Satisfaction Guaranteed or Money Refunded" is a good line, and is deserving of more prominence than it possesses in the ad, which appeared in the *Leavenworth Times* of December 16 last and took up four inches of space two columns wide.

Heating and Ventilating

"AJAX" AND "BERMUDA" FURNACES.

The triangular grate used in "Ajax" and "Bermuda" furnaces, manufactured by the Co-operative Foundry Co., Rochester, N. Y., is said to be unsurpassed for efficiency in removing ashes and clinkers, and for the facility with which the grate can be taken out for examination. The manner of removing the grate is shown in the accompanying illustration. It is only necessary to lift the grate a trifle at the front, draw it forward and out. There are no bolts or latches to loosen or unhook. "Ajax" and "Bermuda" furnaces are supplied with a water pan for the purpose of moistening the air; a dust damper over the ash-pit door, which carries the dust from the ash-pit when the grate is shaken into the fire above; an efficient check damper by means of which the fire is under perfect control at all times. "Ajax" and "Bermuda" warm-air and combination furnaces are fully described and illustrated in catalogue No. 4 of the Co-operative Foundry Co. When writing for it kindly mention THE AMERICAN ARTISAN.

Triangular Grate of "Ajax" and "Bermuda" Furnaces.

THE "LACKAWANNA" FURNACE.

The Graff Furnace Co., 208 Water street, New York, are calling the attention of the trade to the "Lackawanna" warm-air furnace for anthracite coal, bituminous coal or wood. The radiator and combustion chamber of this furnace are combined in one. The radiator is very large and has two inside radiating surfaces in addition to the large outside radiating surface. The flue is horseshoe-shaped, and the air supply passes up through the radiator as well as all around it. This affords a large area of surface exposed to the direct influence of the products of combustion. When hard coal is intended to be used The Graff Furnace Co. put a cut-off plate in one side flue, and place the smoke collar on one side, thus compelling all the smoke and gases to pass entirely around the radiator. The cut-off plate is hinged, and can readily be opened for direct draft or for cleaning the flue. Smoke outlets are provided on both sides of the radiator, and a cap is furnished to stop off the one not used. The cut-off plate is easily transferred from one side to the other, thus furnishing either right or left smoke outlet as may be desired. When soft coal is used the smoke pipe is connected with the back collar, and the draft is allowed to turn both ways in the radiator by leaving out the cut-off plate. As soft coal produces much smoke and gas, this idea affords ample facilities for their escape. In the "Lackawanna" warm-air furnace The Graff Furnace Co. state that they offer a furnace that is very powerful and economical, and in every way satisfactory. When writing for descriptive literature kindly mention THE AMERICAN ARTISAN.

WORK OF THE FEDERAL FURNACE LEAGUE.

The issuance this week of the Handbook of the Federal Furnace League to every retail furnace merchant in the United States marks an epoch in the warm-air furnace industry. This is the greatest and most notable attempt ever made by the manufacturers of furnaces to educate the installers of furnaces to better methods and practices. The book bears the simple title, "The Warm-Air Furnace," and it contains extremely valuable and thoroughly practical rules, directions and suggestions on furnace installation. The book will be of the greatest value to the trade as a comprehensive and reliable guide to the correct methods of installing warm-air furnaces in buildings of every character to the heating of which they are adapted. Additional copies of the handbook can be secured, free of charge, by furnace merchants, architects, contractors and builders upon application to members of the league.

The next annual meeting of the league will be held in Atlantic City in May and its sessions promise to be most important and interesting to all who believe in the merits of warm-air furnace heating. A number of papers are being prepared on different features of the furnace industry by competent writers and there will be reports from several committees which have been appointed to prepare papers on topics of vital interest to the manufacturers of and dealers in furnaces. The trade throughout the entire country is manifesting a most remarkable interest in the movement for the elevation and improvement of the warm-air furnace business. It is probable that some broad and comprehensive method for the collective advertising by the members of the league of the merits of warm-air furnace heating will be adopted at the May meet-

ing. At least it is certain that the subject of entering upon a national advertising campaign for the purpose indicated will be thoroughly discussed and exhaustively investigated.

THE "MAJESTIC" COAL OR WOOD CHUTE.

The Majestic Furnace & Foundry Co., Huntington, Ind., are sending out a circular describing the "Majestic" Coal or Wood Chute, which is made of heavy steel and cast-iron and is guaranteed to withstand the severe usage given it by the most careless coal teamsters when putting fuel in the cellar. The door is supplied with a self-locking device, so that the coal man may close and lock the door before leaving the house. The door can be easily unlocked from the inside only, and cannot possibly be opened from the outside. When the chute is open and ready to receive the fuel, the door swings upward and is automatically locked, thereby protecting the siding above the opening. The adjustable hopper is so arranged that it will receive all the fuel either from the basket or shovel, and will avoid scattering of coal upon the ground. It can be removed when desiring to put in coarse wood or when a wagon chute is used. The Majestic Furnace & Foundry Co. state that the "Majestic" chute is endorsed by many of the leading architects and contractors of the United States. When writing The Majestic Furnace & Foundry Co., kindly mention THE AMERICAN ARTISAN.

CATALOGUE OF THE LENNOX FURNACE CO.

The Lennox Furnace Co., Marshalltown, Ia., are sending out their catalogue No. 1, describing their celebrated line of "Torrid Zone" steel furnaces, which are made in 20 sizes for hard or soft coal or wood. For 15 years The Lennox Furnace Co. has employed an expert heating engineer to study heating problems, and the "Torrid Zone" steel furnace has been the result. Simplicity of construction has overcome all difficulties while at the same time reducing the cost of manufacture. The Lennox Furnace Co. state that while the "Torrid Zone" is not the cheapest furnace on the market because of its quality, yet the price is not made so high by the factory cost as to keep its makers constantly apologizing. A solid steel shell, riveted by powerful machinery like a boiler, dust-proof and gas-tight, covers the fire-pot, ash-pit and all. There are no packed joints in "Torrid Zone" furnaces to leak gas, nor is the oxygen burned out of the air by coming into contact with the superheated parts. The Lennox Furnace Co. claim that they manufacture more steel furnaces than any other one company in the United States, their heaters being sold from Pittsburg to California, and from Canada to Texas. It is the purpose of the catalogue which the company are sending out to show by illustration and description that the simplicity of the "Torrid Zone" furnace enables it to get the most heat out of a given amount of fuel in the shortest space of time. The "Torrid Zone" is an easy furnace for the dealer to set, easy for the householder to manage, and is an all-round reliable, effective and substantial heater. When writing The Lennox Furnace Co. for catalogue No. 1 kindly mention THE AMERICAN ARTISAN.

PARAGRAPHS.

The Security Heating Co., of Baltimore, Md., has been incorporated to engage in the heating and ventilating business, by Robert A. Sumwalt, S. G. Kugler and F. L. Klemm.

The Wise Furnace Company, Akron, Ohio, manufacturers of Wise warm-air furnaces, announce an increase in the capital stock of the company from $50,000 to $150,000, a step deemed necessary by reason of the rapidly increasing business of the concern.

At a recent meeting of the stockholders of The Stanton Heater Co., Martins Ferry, Ohio, manufacturers of Stanton warm-air furnaces, George L. Spence was elected president succeeding his father, L. Spence, who died last year. The other officers are: Vice-president, Henry Stanton; secretary-treasurer, S. T. Kerr. The board of directors comprises Henry Stanton, George L. Spence, T. W. Shreve, William Mann, S. T. Kerr and E. B. Steer.

THE SLAVE'S CATECHISM.

The following was found posted in a California shop:

1. Do you consider the job you have to be worth holding?
2. Would you be satisfied with services rendered to you, in the same manner, quantity, and quality that you render service to your employer?
3. Are you or are you not interested in your employer's success?
4. Do you want an advance in position and wages?
5. Do you really think you are worth either?
6. Would you select for advancement or repose greater responsibility in an employe who took the same interest in your business that you do in your employer's?
7. Are you proud of the manner in which you perform your duties?
8. Do you like your work, or do you like to work in any way?
9. Do you make play of your work, or do you play at your work?
10. Which would you consider the most useful employe, the man who knew how to do, the man who did do, or the man who knew how and did do?
11. Which class are you in?
12. Is your employer inclined to be fault-finding.
13. Whose fault is it, yours or his?
14. Are you the most or least valuable man on the job, or where is your place?
15. Are you doing justice to yourself?
16. Would you seriously inconvenience your boss by quitting?
17. Are you as familiar with your work or as competent as you should be, considering the length of your employment on the work in which you are engaged?

Answers must be made aloud to yourself only, and recorded in black and white on your consciousness only.

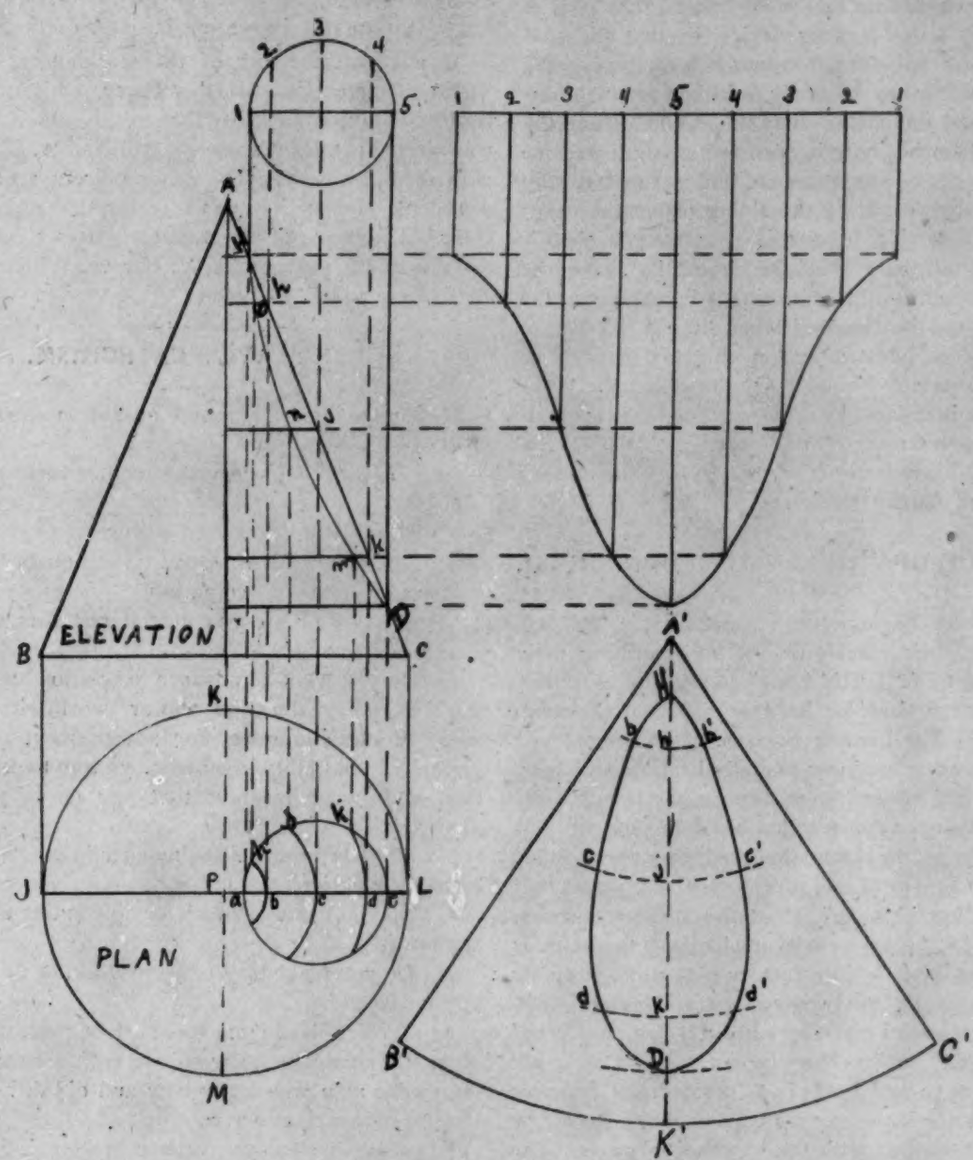
Tinshop

CONE INTERSECTED BY A CYLINDER AT RIGHT ANGLES TO BASE.

To THE AMERICAN ARTISAN:

I am submitting the patterns of a cone intersected by a cylinder at right angles to its base, asked for by W. E. Downing, Wichita, Kansas, in THE AMERICAN ARTISAN of February 6. First draw plan and elevation. Divide the section of the cylinder into any convenient number of equal parts, as shown by the small figures. From each of the points drop lines parallel to the sides of the pipe cutting the side of the cone, extending them to the line *J P L* in plan, as shown by *a b c d e*. Through each of these points, from *P* as center, describe circles as shown cutting the sides of the plan of cylinder. From each of the points of intersection with the side of the cone *A C* draw lines parallel with the base and extend them inward.

If it is desired to show the miter line in elevation formed by the junction of pipe and cone, from the points *h j k* in plan of cylinder, carry lines vertically to elevation, producing them until they meet the horizontal lines having similar letters drawn through the side of the cone *A C*, giving the points *m n c*. A line traced through these points as shown by *D m n o H* will be the miter line. For the pattern for cylinder lay off stretchout as shown by small figures and drop lines parallel with cylinder. Now draw lines at right angles of cylinder, intersecting the lines of corresponding number. A line traced through these points will be the required pattern.



Diagrams of Patterns for Cone.

To obtain the shape of opening to be cut in cone to correspond with shape of pipe, draw *A' B' C' K'*. On *A' K'*, the center line of pattern, set off points corresponding to *H b c d D*. From the center *A'* of pattern describe arcs cutting the points *H b c d D*. It only remains to make each of these arcs equal in length to the one to which it corresponds in the plan, by any method most convenient. Thus make *k d* and *k d'* equal to *k d* of the plan, *j c* and *j' c'* equal to *j c* of the plan, *h b* and *h b'* equal to *h b* of the plan. A line

traced through these points will be the shape of the opening.

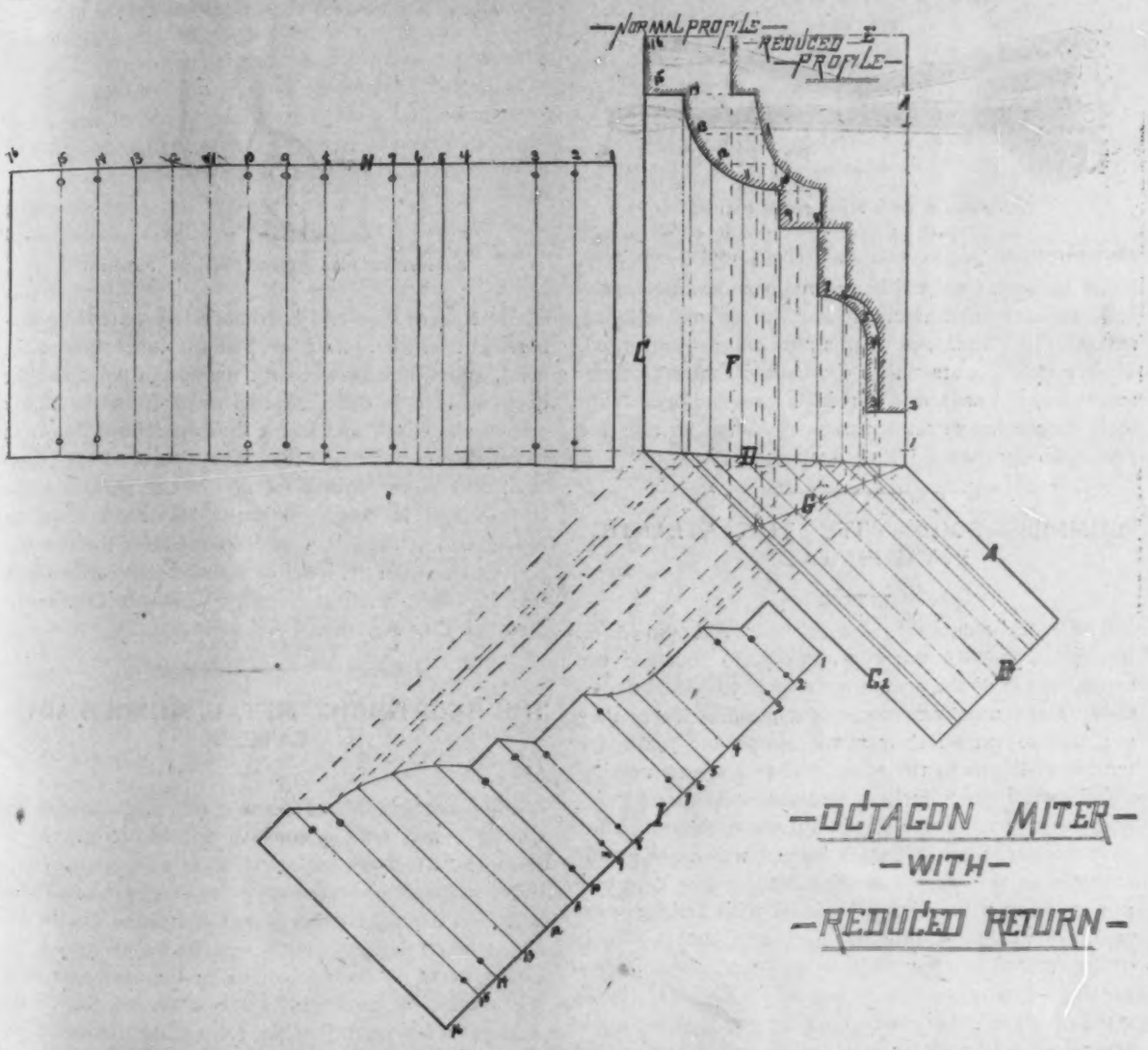
PETER EHLINGER.

525 Main St., Le Mars, Ia., Feb. 12, 1909.

OCTAGON MITER WITH REDUCED RETURN.

BY G. L. GRAY.

First draw normal profile and wall lines *A*, *A*. Draw line *B*, the projection of reduced return, also lines *C* and *C1*, and where these two lines cross draw miter line *D*; next take the length of line *B* and place



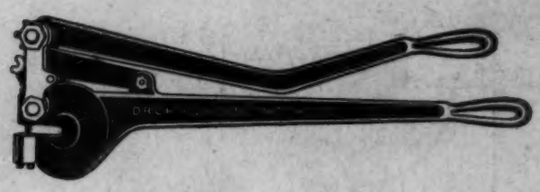
it on line *E*. Draw dotted line *F* to *C1*, and from this point draw miter line *G*. Next drop lines from all points in normal profile to miter line *D* and from all points on line *D* draw lines intersecting miter line *G*. From points on line *G* draw dotted lines up to cross lines, drawn from corresponding lines from normal profile. Drawing line through these points will give reduced profile, as shown. Next draw stretch-out lines *H* and *I*, and take the spaces from normal profile and place on line *H*, and spaces from reduced profile place on line *I*, and develop patterns from miter line *D*.

STEEL CLOTHING LOCKERS.

The Berger Mfg. Co., Canton, O., are sending out a catalogue of their steel clothing lockers for armories, factories, hotels, railroads, clubs, halls, offices, theaters, etc. Clothing lockers facilitate the maintenance of an orderly and sightly condition of affairs in offices, stores, factories, etc., and prevent tampering with clothing or their contents. The advantages of steel lockers over wooden ones are too apparent to require any extended comment. Steel lockers are stronger and more secure. Their non-combustible fire-resisting construction is also the most compact of any, giving maximum capacity for space occupied. They are rodent and vermin proof, non-absorbent and sanitary. They withstand hard usage, wear and tear and save in cost of maintenance. The steel clothing lockers of the Berger Mfg. Co. are built on the unit system, and are quickly and easily assembled and installed. Additional sections may be added at any time by simply removing end plates and connecting up the new sections. All the company's single tier lockers are provided with a shelf, and there are six strong clothes hooks in each locker. The doors have a brass number plate. The standard finish of Berger lockers is olive green enamel, which being a neutral color, looks well in all surroundings. The Berger Mfg. Co. furnish lockers in other colors to match interior woodwork or to harmonize with other fixtures or furniture. When writing the Berger Mfg. Co. for prices, kindly mention THE AMERICAN ARTISAN.

A PATENT HAND METAL PUNCH.

H. Weiss & Co., 20 Cliff St., New York City, state that their Patent Hand Metal Punch, shown in the accompanying illustration, is the most modern time and labor-saving tool of the kind now on the market, for manufacturing plants, general repair, or outside construction work. This punch saves moving jobs to the shop and saves carrying work back and forth to stationary punches. It is manufactured to meet the



H. Weiss & Co.'s Hand Metal Punch.

requirements of all steel and sheet metal workers, boiler makers, blacksmiths, carriage and wagon makers, furnace manufacturers, cornice and roofing makers, etc. The parts of this punch are drop forged. H. Weiss & Co. state that six United States Government Navy Yards and Arsenals are equipped with their patent hand metal punches. When writing for prices, kindly mention THE AMERICAN ARTISAN.

BUSINESS GOOD WITH THE ATLANTIC STAMPING CO.

The stockholders of The Atlantic Stamping Co., Rochester, N. Y., recently decided to increase the capital stock of the company from $250,000 to $500,000. The company are now in a position where they are able to extend their ramifications and make extensive additions to their line. They are now making a full line of dairy buckets, strainer buckets and gasolene oil cans from five to ten gallons capacity. They have two large lines of wash boilers, which are manufactured in tin, copper and anti-rust. The company are enjoying a very large business with their galvanized iron washtubs and galvanized iron buckets. Their oval dinner pails are well known to the trade throughout the country. Their line of XXXX re-tinned stamped ware is very complete, the goods being made from full-weight plates and heavily wired and coated with pure tin.

J. R. McLaughlin, formerly president and general manager of The Lisk Mfg. Co., Canandaigua, N. Y., is now general manager of The Atlantic Stamping Co. Mr. McLaughlin has had 21 years' experience in the manufacture of tinware, galvanized iron ware and enameled steel ware, and he is considered one of the most expert metalware men in the United States today. He has the reputation of turning out some of the best goods ever produced in this country. Mr. McLaughlin has a large acquaintance among the retail trade from the Atlantic to the Pacific. Dealers may be assured that the goods furnished them by The Atlantic Stamping Co. under the able supervision of Mr. McLaughlin will be high grade and perform efficient service.

NEW SHEET METAL CONVERTIBLE PIPE ELBOW.

A United States patent on a sheet metal convertible pipe elbow was, on February 16, granted to Herman F. Voshardt of Friedley-Voshardt Co., 194-204 Mather St., Chicago, manufacturers of sheet metal goods. The number of Mr. Voshardt's patent is 912,336, and the application for the patent was filed on September 21, 1908. As shown in the accompanying illustration the new elbow has beyond the middle of the bend of the

Convertible Pipe Elbow Recently Patented.

elbow toward one end a transversely extending embossment which is maximum at the inner side of the bend, and which between the maximum point and the opposite side is deflected backward from the nearer end of the elbow and has a sharply defined line from its maximum point past the deepest point of the deflection, and there beyond merges in the surface. The embossment is deeply deflected backward from the nearer end of the elbow at a point nearer the outer or convex side than the inner or concave side of the elbow bend. When writing Friedley-Voshardt Co., kindly mention THE AMERICAN ARTISAN.

THE "CORTRIGHT METAL SHINGLE ADVOCATE."

The Cortright Metal Roofing Co., Philadelphia and Chicago, will send a copy of the "Cortright Metal Shingle Advocate" for one year free of charge to all those interested in roofing or roofing problems who will send them their names and addresses. The February issue of the "Advocate" contains some very interesting items on the subject of roofing and sets forth the merits of Cortright Metal Shingles, which are made of a fine quality of tin. Regarding these shingles, the booklet says: "Cortright Metal Shingles have the lightness of the best tin, the strength of the best tin, the ductility of the best tin—and in addition to their beautiful forms, are made with an interlocking device at the side that so compensates for expansion in heat and contraction in cold that they can never pull apart or tear out the nail holes." Every genuine Cortright metal shingle is marked, to avoid substitution. In the February "Advocate" are shown the four styles of metal shingles made by the Cortright Metal Roofing Co. When writing, kindly mention THE AMERICAN ARTISAN.

Whenever some discouraging circumstance throws you down into the depths of despair, bound up higher and stronger than ever, with the determination to make a more strenuous effort next time.

THE STEWART STAMPING CO. SECURES JOHN L. McLAUGHLIN.

John L. McLaughlin, who for a number of years was vice-president of The Lisk Mfg. Co., Canandaigua, N. Y., and had been in charge of the enameling department of that concern, is now vice-president and general manager of The Stewart Stamping Co., Moundsville, W. Va., having been appointed to this position the first of the year. The Stewart Stamping Co. are now turning out several high-grade lines of enameled ware, namely, Stewart art decorated ware, Stewart Austrian export ware, Stewart rosewood ware, and high-grade blue marbleized ware. They have now in course of construction a large addition to their plant which will give them approximately 30,000 square feet of additional floor space, doubling their capacity. By April 1 it is expected that these new buildings will be ready for occupancy, at which time the company will be able to fill all orders for the above-mentioned goods with the utmost promptness. Since Mr. McLaughlin's affiliation with The Stewart Stamping Co., they have secured many experienced and capable artisans, who have had a wide experience in the manufacture of enameled ware. Mr. McLaughlin's identification with the enameled ware industry extends over a long period of time. He spent the greater part of two years in investigating the manufacture of enameled ware in Germany, Austria, France, Switzerland and Great Britain. The Stewart Stamping Co. are to be congratulated upon having enlisted the services of such a thoroughly capable executive as Mr. McLaughlin.

NOTES AND QUERIES.

"PILOT" HEATING STOVE.

From Friedhoff & Mahaffey, 400 Franklin Street, Johnstown, Pa.

Can you tell me the name of the firm that makes the "Pilot" Heating Stove No. 6?

Ans.—Bridge & Beach Manufacturing Company, St. Louis, Mo.

STENCIL CUTTING MACHINES.

From The Peck-Hamre Manufacturing Company, Berlin, Wisconsin.

Kindly inform us who are makers of stencil cutting machines.

Ans.—Bradley Stencil Machine Company, 36 La Salle Street, Chicago, and St. Louis, Mo.

ADDRESS OF MICHIGAN WASHING MACHINE COMPANY.

From H. J. Yorty, Paw Paw, Illinois.

Please let me know where the Michigan Washing Machine Company is located.

Ans.—Muskegon, Mich.

MANUFACTURERS OF SHEARS.

From Thomas McLaughlin Company, Box 799, Milwaukee, Wisconsin.

Will you kindly give us a list of the manufacturers of shears in the United States?

Ans.—Acme Shear Company, Bridgeport, Conn.; American Shear & Knife Company, Hotchkissville, Conn.; Bridgeport Hardware Manufacturing Co., Bridgeport, Conn.; Clauss Shear Co., Fremont, Ohio; Diamond Shear Company, Wilmington, Del.; S. R. Heinisch's Sons Co., Newark, N. J.; International Cutlery Co., Fremont, Ohio; J. Mallinson Shear Company, West Cornwall, Conn.; National Cutlery Company, Westmoreland and Boudinot, Philadelphia, Pa.; Schatt & Morgan Cutlery Company, Titusville, Pa.

WATER COOLER.

From Henry Butz, Muscatine, Iowa.

Can you give me the name of a party manufacturing a water cooler with cast white lined reservoir and oak outer casing?

Ans.—Albert Pick & Co., 199 Randolph Street, Chicago; Fulper Pottery Company, Flemington, N. J.

NICKELED ZINC SHEETS.

From W. A. Acton, Topeka, Indiana.

Where can I obtain nickeled zinc sheets?

Ans.—American Sheet & Tin Plate Co., Frick Bldg., Pittsburg, Pa., manufacturers of Monel Metal.

GALVANIZED IRON BARN DOOR TRACK COVERING.

From M. A. Benson, Saranac, Michigan.

Can you advise me who are manufacturers of galvanized iron barn door track covering?

Ans.—Allith Mfg. Co., Taylor St. and 43d Ave., Chicago; Griffin Mfg. Co., Erie, Pa.; Safety Door Hanger Co., Ashland, Ohio.

SOUVENIR.

From H. A. Lee, Canton, South Dakota.

Will you kindly send me the address of a dealer or manufacturer from whom I could get some little article to give away as a present or souvenir?

Ans.—F. L. Shafer Company, 161 Market Street, Chicago.

ALUMINUM SHEETS.

From W. A. Acton, Topeka, Indiana.

Will you kindly tell me where I can buy aluminum sheets?

Ans.—Aluminum Company of America, Pittsburg, Pa.

DIAMOND-SHAPED ALUMINUM WHETSTONES.

From Thomas McLaughlin Company, Milwaukee, Wisconsin.

Will you kindly tell us who manufactures diamond-shaped aluminum whetstones?

Ans.—Chicago Wheel & Manufacturing Company, 336 W. Monroe street, Chicago.

GASOLENE WATER HEATER.

From Gerbert Brothers, Seneca, Illinois.

Can you give us the address of manufacturers making a heater, using gasolene for fuel, the heater to be used for heating water for bathroom fixtures?

Ans.—George M. Clark & Company, Chicago.

ITEMS.

The National Enameling & Stamping Company will erect a two-story warehouse, 60 x 203 feet, at Granite City, Ill., at a cost of $20,000.

The Standard Tin Plate Co., of Canonsburg, Pa., will erect four additional hot mills, which will give it a total of ten hot mills in its plant.

The Glines Roofing Co., of New York City, has been incorporated with a capital stock of $3,000 by George E. Glines, C. H. Grammer and William C. Findlay.

Follansbee Bros. Co., Pittsburgh, Pa., are furnishing Scott's extra coated roofing tin for use upon the

residence of Bishop Spalding, Peoria, Ill. P. H. Kavanaugh of that city, will do the work.

The Mellish-Hayward Co. of Chicago has been incorporated with a capital stock of $25,000 to do a general sheet metal contracting business. The incorporators are Frank Mellish, R. B. Hayward and George D. Wellington.

The Rockford Metal Specialty Company of Rockford, Ill., has been incorporated with a capital stock of $10,000 to manufacture metal specialties, metal plating, etc. The incorporators are: George O. Forbes, Frank C. Rutz and E. M. St. John.

The Reversible Tin Roofing Co. of Mooresville, N. C., has been incorporated with an authorized capital of $100,000 to manufacture and deal in tin and tin plate. The incorporators are : B. A. Troutman, P. S. Torrence and J. W. Brawley, all of Mooresville.

The E. L. Parker & Nimmo Co., of Baltimore, Md., has been incorporated with a capital stock of $100,000 by W. C. Nimmo, Henry C. McComas and Henry O. Reese, president, vice-president and secretary-treasurer, respectively. The company has been engaged in the tin plate and metal business.

Thomas P. Walsh, a prominent master sheet metal worker of San Antonio, Tex., called at the offices of THE AMERICAN ARTISAN during the week. Mr. Walsh came to Chicago for the purpose of witnessing the test made at the Underwriters' Laboratories of one of his new sheet metal windows.

The Gibbs Mfg. Co., Princeton, Ill., are distributing a folder describing Gibbs' Improved Wire Hanger Machine, for the tinshop. This machine makes hangers of all sizes from 3½ to 8 inches wide, and seven different lengths, using any size wire adapted to the work. It is substantially made, easy to operate, and with a little practice a man or boy can make them almost as rapidly as the large power machines. A hundred pounds of No. 11 galvanized wire will make 7½ gross of 4-inch hangers.

WHEN THE SHORT ROUTE MAN WINS OUT.

BY HERBERT F. THRALE.

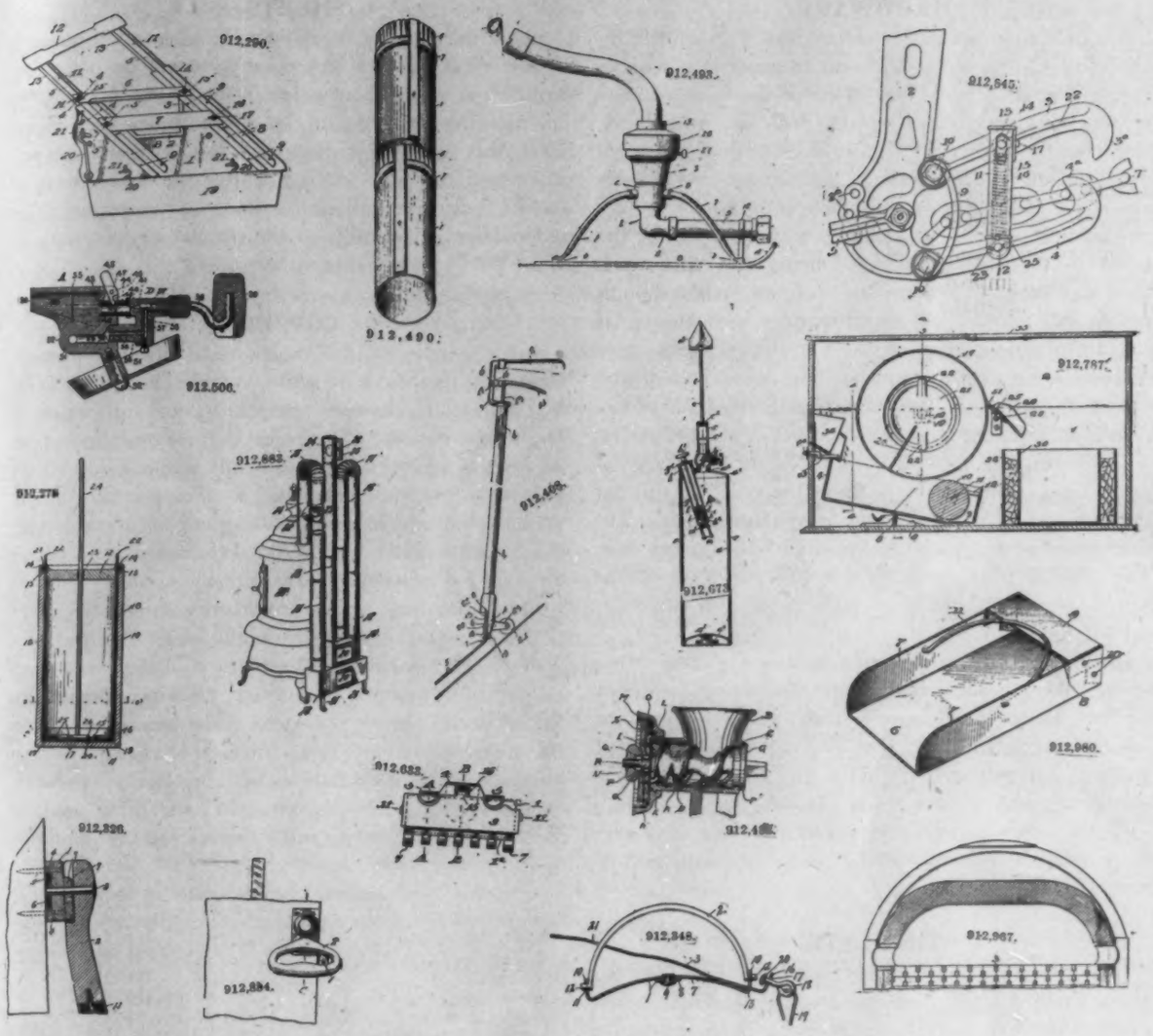
In business there are two ways of reaching a desired end. In fact, these two methods of approach apply to all phases of human activity. But nowhere do they count for more or will they lose more than in business. One way is short and decisive; the other long and circuitous. Out of every 100 men working for a definite end ninety-nine are taking the longest, hardest, and most involved route. That's a conservative estimate. The short route man is more likely to be one out of 500. The difference in the degree of success of the short route man and the long route man is this: The former is capable—is able to do things when he gets face to face with his ambition; he's got energy, activity, and life reserved for the really big things of business. But he who finally arrives at his destination after years of toil and wasted energy has so spent himself—the vital in himself—that he can not grapple with the problems that confront him. He is unable to make the most of his opportunity after fighting to get to it. The long and the short routes represent the wasting and conserving of energy. The Marathon runner who boldly and daringly starts out to outdistance the other runners at the first, but does not reserve his strength till the final spurt, and who does not cunningly plan his every maneuver, will never reach the tape. When he does cross it is long after the victor has received his laurels.

Most men pick out a long route of their own volition. They select it under the illusion that it is the quickest and shortest way. In business men are inclined to seek the line of least resistance, which is usually the long way. That may appear inconsistent at first glance; but it is true.

The road to success in business is simply a highway of obstacles. It is not a smooth macadam. There are no convenient automobiles or other means of conveyance. It is a rough footpath strewn with huge rocks, massive fallen trees, unexpected short turns and corners, and steep gulches and ravines; but you can walk it if you are careful, and if you plan and study your journey. The average man confronted with this perspective immediately plans to reach the other end by avoiding all obstacles he sees before him and those which he knows lie in the path farther on. That looks to him as the shortest, easiest way to the journey's end, where success awaits him. He starts out by going around the huge stones, hunting carefully for paths that lead past the fallen trees, seeking diligently where the roads are straight so as not to be bothered by the short turns and corners, and exploring for bridges and devising methods to span the rocky gulches and ravines. If he is persistent and hardy he will finally reach the other end of the road—exhausted. He'll expect the hand of Midas to be extended towards him lovingly. He won't have the energy, the strength, the ambition to pry open the fingers that hold what he wants. The gold he gets is only that which is peeping out from between the closely clutched fingers—a pitifully small portion compared with what he might have gotten were he able.

Meanwhile, another has entered the road and is about to make his way to its end. He also sees the obstacles before him, but he is a short route man. He resolves to face them and overcome them, not avoid them. He climbs over the rocks and trees, using every ingenuity to do it the easiest and quickest way, the way that will consume the least energy and strength. He picks his way carefully down the gulches and ravines, and uses all the means possible to pull himself up—limbs of trees, weeds and grasses. The smooth stretches of the path where his predecessor lingered in order to rest himself he can glide over quickly. He reaches the end of the road and also finds the hand of Midas tightly closed, but he has not misspent his energy, he can open it and find his reward in full. Don't try to get away from the obstacles that confront you; meet them, fight them, overcome them. The success of the last conquest will help you with the next, will develop you, and strengthen you. That's the short route and that's the history of all the successful men of to-day. They did not lie down and try to crawl by; they stood up, faced the enemy in whatsoever form it appeared, and downed it.

NEW PATENTS.



912,279. Churn. Willie Brockette, Westmoreland, Tenn. Filed May 25, 1908. Serial No. 434,858.

912,290. Bread-slicer. James R. Crouch and Newton H. Turbyfill, Asheville, N. C. Filed May 9, 1908. Serial No. 431,871.

912,326. Door-stop. Edward C. Scruggs, Nashville, Tenn. Filed Nov. 2, 1908. Serial No. 460,758.

912,348. Animal-trap. Orrin D. Wright, Oneida, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a corporation of New York. Filed Dec. 20, 1906. Serial No. 348,784.

912,408. Lawn-trimmer. Joseph R. Place, Chicago Heights, Ill. Filed March 9, 1908. Serial No. 420,015.

912,482. Food-chopper. Samuel R. Munson, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut. Filed Aug. 14, 1906. Serial No. 330,534.

912,490. Stovepipe. John T. Rider, Oil City, Pa. Filed Nov. 27, 1907. Serial No. 404,162.

912,493. Lawn-sprinkler. Russell C. Sanders, Pierre, S. D. Filed Sept. 24, 1907. Serial No. 394,289.

912,506. Hydrocarbon-burner. Asa W. Straight, Chicago, Ill., assignor of one-half to The Turner Brass Works, Sycamore, Ill., a corporation of Illinois. Filed June 15, 1908. Serial No. 438,571.

912,633. Safety-razor. Philip H. Unsinger, Fremont, Ohio. Filed Feb. 15, 1908. Serial No. 416,002.

912,673. Combined Soldering-iron, Torch and Portable Light. Arthur Harf, New York, N. Y. Filed June 22, 1908. Serial No. 439,652.

912,787. Ice-cream Freezer. Thomas M. Belknap, Burlington, Iowa. Filed Feb. 11, 1908. Serial No. 415,379.

912,845. Fence-stretcher. Frank D. Haynes and John A. Cocker, Joliet, Ill., assignors to American Steel & Wire Company, Chicago, Ill., a corporation of New Jersey. Filed Sept. 2, 1908. Serial No. 451,331.

912,883. Auxiliary Heater for Stove. William Pett, Muskegon, Mich. Filed Sept. 1, 1906. Serial No. 332,984.

912,884. Door-lock. Frank P. Pfleghar, New Haven, Conn., assignor to F. P. Pfleghar & Son, New Haven, Conn., a firm. Filed Sept. 29, 1906. Serial No. 336,663.

912,967. Hot-blast Stove. James I. Larimer, Joliet, Ill. Filed May 22, 1906. Serial No. 318,122.

912,980. Furnace-pan. Thomas C. Evans, Kankakee, Ill., assignor of one-half to Philip W. Worth, Kankakee, Ill. Filed March 21, 1908. Serial No. 422,429.

Trade Report.

HARDWARE.

The hardware market is featureless with a little irregularity in demand, which varies according to sections of the country. The unsettled tariff question is credited with causing a good deal of uneasiness, though in the West and Middle West it does not seem to be causing much agitation. Business in this section of the country is on the whole satisfactory. Prices are holding generally steady, notwithstanding the slump in the steel market. During the past week there was an improved demand for wire nails, though the cut nail market still remains quiet with buying of a hand-to-mouth character. The independent wire interests are doing a good business and are working almost to capacity. The American Steel & Wire Co. have been working from 80 to 90 per cent of capacity.

The base price of wire nails at the mill is $1.95 per keg. The jobbing price is $2 at the mill for full car loads and $2.10 at the mill for less than car loads. The base price of cut nails at the mill is $1.90 per keg. The jobbing price is $1.95 for full car loads at the mill, $2.05 for less than car loads at the mill and $2.35 out of store.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers' car lots, $2.03; retailers' car lots, $2.08; $2.15 out of store; painted barb wire, jobbers' car lots, $2.28; retailers' car lots, $2.33, with 30 cents for galvanizing; plain wire to jobbers in car lots, $1.98, and to retailers in car lots, $2.03.

Reductions of from 7½ to 10 per cent and even more have been made in the prices of strap and T-hinges.

TIN PLATE.

The tin plate market has not been harassed like other finished steel products, and the leading interest in the Pittsburg district has been operating to 75 per cent capacity. It has now 164 mills working and the independents are mostly all in operation. The 12-mill plant at Pittsburg of the Pope Tin Plate Company started up in full during the week. Within the past ten days there have been reductions of 10 cents per box on tin plates, but it is not believed that any heavy concessions will be made, as the market in the past has been of a pretty firm character. For 100-lb. plates $3.89 is asked f. o. b. New York, and $3.70 for the same grade at Pittsburg mills, with the independents in the latter city quoting $3.65.

Am. coke tins, I. C., from store, New York:	
Bessemer steel, 107 lbs., 14x20	$4.35@4.40
Bessemer steel, 100 lbs., 14x20	4.20@4.25
Bessemer steel, 95 lbs., 14x20	4.10@4.15
Bessemer steel, 90 lbs., 14x20	4.00@4.05
Am. charcoal terne, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.30@4.35
Worcester grades, 14x20, 100 lbs	4.15@4.20
Worcester grades, 20x28, 200 lbs	8.00@8.10
For prompt shipment, f. o. b mill:	
Coke, tins, 14x20, I. C	3.85@3.90
Coke, tins, 14x20, 100 lbs	3.70@3.75
Coke, tins, 14x20, 95 lbs	3.65@3.70
Coke, tins, 14x20, 90 lbs	3.60@3.65
Charcoal, terne, 20x28, I. C	7.30@7.35
Charcoal, terne, 20x28, 200 lbs	7.00@7.05

Usual difference for odd sizes and weights.

SHEETS.

Some uncertainty regarding prices seems to prevail in the sheet market and manufacturers do not seem inclined to establish new low rates. Prices, however, are ranging from $3 to $5 a ton under the official level, this applying particularly to corrugated sheets. A reduction of $3 from the price of black sheets is looked forward to, though with some uncertainty. The independent sheet mills of the country are working at from 70 to 75 per cent of capacity.

COPPER.

Ingot copper is dull and easy, with no quotable change in the prices of actual copper, though the New York Metal Exchange continues to quote prices down from day to day. Producers of electrolytic copper report the market quiet and firmly maintained at 13½ cents per lb. for electrolytic for futures, and an increasing interest in prime casting copper at 13¼ cents for nearby deliveries. Lake producers are quoting 13½@13¾ cents for April shipments and 13¼@13½ cents for casting grades for March and April.

There was a report late in the week that the New York manufacturers of sheet copper had made a drastic cut of 2½ cents lb., but later this was denied, the actual decline being 1 cent lb. The base price is now 18 cents lb. There is no further change to note in yellow metal, the quotations being 17 cents for dimensions, 15 cents for sheathing and sheathing nails, 16 cents for slating nails and 17 cents for keel and stem metal.

Extreme fluctuations for the year:

	Highest.	Lowest.
Lake	14.25	13.00
Electrolytic	14.25	12.62½
Casting	14.12½	12.50
London spot	£64 2 6	£57 5 0
London futures	64 17 6	58 2 6
London, best selected	67 15 0	60 0 0

STEEL.

Notwithstanding that the expected cut in the prices of finished steel products was announced several days ago, the market is still unsettled, and members of the distributing trade are all at sea as to the figures at which material can be purchased. The quotations have been under control for so long that the trade finds it difficult to adjust itself to the changed conditions. At the same time, it is doubtful if the steel manufacturers themselves have a very much clearer view of the situation than have their customers. One fact seems to stand out prominently—the market is wide open. There is no longer in existence any agreement that will hinder any one of the steel mills from seeking and accepting business at any price the managers care to make. Some of the cuts named in the current news are manifestly absurd, but there is no doubt that lower prices are being named in some lines that have been seen for years.

The only exception to this is in the matter of steel rails. Reports of what is being done in rails is con-

flicting, but as there are fewer mills in a position to turn out a large tonnage of rails than is the case in any other prominent line, there seems to be some hope that a drastic cut can be avoided. There is no doubt that the railroads are demanding lower prices on rails, and there is a disposition to hold back orders until something is done to meet their demands.

Most of the large railroad systems have not yet placed their rail orders for the year 1909, and the few that have given out any business have only partially covered their needs for the year. Even with other steel items at the figures agreed upon last year, there was always a very strong feeling that the price of rails was too high, while now that the market has been opened up this feeling is accentuated. The Pennsylvania and Baltimore & Ohio are still in the market for about 200,000 tons of rails, and are not likely to make any move for some time yet.

The drastic cut announced in steel business has not resulted in any great rush for material from consumers, according to the best information available. It is possible that some orders had been held back a little in anticipation of the decline, but the actual business placed has been moderate, and reports to the contrary are discounted by well informed members of the trade. There is no expectation that there will be any material increase in the demand, except as it comes in the regular course of the market. As far as the structural situation is concerned, the market has been on the lower basis for months, and prices on fabricated steel have been made that have meant no more than 1.25@1.30 to the mills for structural shapes and plates. The new prices on finished materials show reductions as follows: Bars, hoops and bands, $4 per ton; plates and shapes, $6; sheets, $3 to $5; steel pipe, $4 to $8; boiler tubes, $6 to $10; wrought iron pipe, $2 to $4. Quotations on billets and sheet bars have not yet been announced. The readjustment of labor costs is regarded as inevitable.

PIG IRON.

The market for pig iron holds very quiet. Prices have not yet been changed, but many members of the trade seem to expect that the cut announced in steel will have a depressing effect upon the iron market. A great deal seems to depend upon the way the market turns. If the steel people are successful in getting a great volume of business at the reduced prices, it may be possible for the iron men to maintain prices. The chances, however, favor lower prices on pig iron. There is reported to be a little better demand for pig iron than was the case a week ago, though a large part of the inquiries are evidently made with an idea of testing the market. Still, a fair proportion result in actual transactions, though the orders placed are of moderate size. Alabama iron is nominally unchanged at $12.50@13 ton, f. o. b. Birmingham. Virginia iron is quiet and nominally unchanged and Pennsylvania iron is steady and unchanged.

CHICAGO MARKET.

Lake Superior charcoal	$19.50@20.00
Northern foundry No. 1	17.00@17.50
Northern foundry No. 2	16.50@17.00
Northern foundry No. 3	16.00@16.50
Southern foundry No. 1	17.35@17.85
Southern foundry No. 2	16.85@17.35
Southern foundry No. 3	16.35@16.85
Southern foundry No. 4	15.85@16.35
Southern No. 1, soft	17.35@17.85
Southern No. 2, soft	16.85@17.35
Southern gray forge	15.85@16.35
Southern mottled	15.60@16.10

PITTSBURG MARKET.

Bessemer, valley	$16.00@16.50
Bessemer, Pittsburg	16.90@17.40
No. 2 foundry, Pittsburg	15.90@16.15
Gray forge, Pittsburg	15.25@15.50
Basic, valley	15.00@15.25
Basic, Pittsburg	15.90@16.15

BIRMINGHAM MARKET.

No. 1 foundry	$13.50@13.75
No. 2 foundry	13.00@13.25
No. 1 soft	13.50@13.75
No. 2 soft	13.00@13.25

Rogers, Brown & Co., Cincinnati, say in their weekly report:

"The week has seen considerable agitation in the steel market, but pig iron continues quiet and so far practically unaffected by any outside influences. Prices are somewhat more irregular. The reduction in price on steel products has so far produced slight results. There has been an active inquiry, but it is considered as being mainly for information.

"It is too soon for consumers to feel they can judge conditions satisfactorily. It is thought by many that the present status of affairs and results from it during the next few weeks will only serve to clear up the atmosphere, readjust present conditions on a better basis and pave the way for a quicker resumption of normal activity. It is hoped that such result will transpire without undue injury and as rapidly as possible.

"There is no let up to the improvement recently reported by some consumers, notably the machine tool makers and agricultural implement manufacturers. The general foundry trade is quiet but are melting at about the same ratio they have maintained for several weeks.

"Coke continues without change. Production is fair and the movement is satisfactory, although inquiries and sales are light. There is no marked change in coke prices."

Matthew Addy & Co., Cincinnati, say in their weekly report:

"The tardy surrender of the Steel Corporation to the laws of supply and demand means of course that the market for finished material will seek its own level. The question among pig iron makers and sellers is whether or not this new state of affairs will have any effect on their product. As a matter of fact pig iron during these troubled times has had no powerful influence to bolster it up. It has had absolutely to paddle its own canoe. Its prices have been fixed solely by the laws of trade, and since the panic there has been a reduction in price of from 40 to 50 per cent. In other words, pig iron has to a very large extent been liquidated and if it is not already on bottom it is very near it. Certain it is that at present prices for pig iron only a few of the most favored furnaces can do much more than get a new dollar back for an old one, while there are many stacks running at a positive loss.

"There has been no parallel between the steel and the iron situations. They have not been in the same class at all. Of course pig iron is bound to be affected by the movement in finished stuff, but how it will be affected is still a matter of speculation. Some observers think that the radical cutting of steel means that there will be a similar collapse in pig iron prices; others believe that with the much larger movement in steel that is bound to come the whole trade will be stimulated and that presently we shall have a fine active pig iron market that before long will clear the situation and make prices better. Both the pessimist and optimist find arguments in the present case that suit their varying temperaments.

"The week has seen an improved inquiry and a good deal of skirmishing on the part of buyers for information. But of course things are unsettled and prices are largely a matter of individual opinion."

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 5
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$18 00@$18 50
North'n Fdy., No. 2	17 50@ 18 00
North'n Fdy., No. 3	17 00@ 17 50
Southern Fdy., No. 1	17 85@ 18 35
Southern Fdy, No. 2	17 35@ 17 85
Southern Fdy., No. 3	16 35@ 16 85
Southern Fdy., No. 4	16 35@ 16 85
Southern No. 1 Soft	17 85@ 18 35
Southern No. 2 Soft	17 35@ 17 85
Southern Gray Forge	15 60@ 16 10
Southern Mottled	15 35@ 15 60
Lake Sup. Charcoal	20 00@ 20 50
Southern Silveries, 4% Silicon	17 85@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	18 85@ 19 35
Jackson Co. Silveries, 6 per cent	19 90
Jackson Co. Silveries, 8 per cent	20 40@ 20 90
Jackson Co. Silveries, 10 per cent	21 90
Malleable Bessemer	17 00@ 17 50
Standard Bessemer	17 65@ 18 15
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12 per 100 lbs.	$2 20@$2 30
No. 14 per 100 lbs.	2 25@ 2 35
No. 16 per 100 lbs.	2 35@ 2 45
Nos. 18-20 per 100 lbs.	2 60@ 2 65
Nos. 22-24 per 100 lbs.	2 65@ 2 70
No. 26 per 100 lbs.	2 70@ 2 75
No 27 per 100 lbs.	2 75@ 2 80
No 28 per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10 per 100 lbs.	$3 05@$3 10
Nos. 12-14 per 100 lbs.	3 05@ 3 10
No. 16 per 100 lbs.	3 05@ 3 10
Nos. 18-20 per 100 lbs.	3 15@ 3 25
Nos. 22-24 per 100 lbs.	3 30@ 3 35
No. 26 per 100 lbs.	3 50@ 3 55
No. 27 per 100 lbs.	3 70@ 3 75
No. 28 per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24 per 100 lbs	$4 90
No. 26 per 100 lbs.	5 00
No. 27 per 100 lbs.	5 10
No. 28 per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 05
" " No. 22-24	3 10
" " No. 25-26	3 15
" " No. 27	3 20
" " No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Mckey Planished Sheet Steel 8½c

SOLDER.

XXX Guaranteed ½ & ½ per lb.	18 c
Commercial ½ & ½ per lb.	17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks case, per cwt.	$7 15
300 lb. Casks per cwt.	7 15
Sheets per cwt.	7 15

COPPER.

Copper sheet, 100 lbs. over, base 17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4.37½@4.40
Bar	4.37½@4.40
National (White) brands (in less than 100 lb lots), per lb	8½c

Sheet.

Full coils per 100 lbs.	$9 00
Cut coils per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.
Plumbs 40%

Coopers'.
Barton's 15%
White's 15%

Railroad
Plumbs 40%

Ship.
Plumbs 40%
White's 15%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c

Shells, Loaded—

Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%

Union Metallic Cartridge Co.:

New Club, Black Powders	40%
Nitro Club, Smokeless Powders	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%

Winchester:

Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%

Gun Wads—per 1,000.
Winchester Gun Wads 15%

Powder.	Each.
DuPont's Sporting, kegs	$5 50
" " ½ kegs	3 00
" " ¼ kegs	1 70
Dupont's Sm'k'less. 50-lb. drum	22 75
" " 25-lb. kegs	11 30
" " 12½-lb. kegs	5 80
" " 6¼-lb. kegs	2 97
" 1-lb. cans	52

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper 33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 60
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-10%
Snell's " " "	40-5%

AWLS.

Brad.	
No. 3 Handled per doz.	$0 40
No. 1050 Handled "	90
Shouldered, assorted, 1 to 4, per gro.	$1 20
Patent asst'd, 1 to 4 "	85
Harness.	
Common "	95
Patent "	90
Peg.	
Shouldered "	1 50
Patent "	60
Scratch.	
No 1 handled "	4 80
No. 18, socket handled per doz.	1 25
No. 7 Stanley	1 80
Sewing.	
Common per gro.	90
Patent "	90

AXES.

Boy's Handled.	
Lippincott, 3 lb per doz.	$6 00
Marshall Falls City "	5 50
Broad.	
Plumbs, West, Pat	33⅓%
" Can. Pat	35%
" Firemen's (handled) per doz	$19 00
Plumbs, Miners' (handled) "	9 00
Single Bitted (handled)	
Blood's Champion	$10 50
Blood's Dull Finished	9 00
Rough Rider	9 00
American	6 50
Perfect Premier, Forest Clipper	10 00
Duquesne	6 00
Single Bitted (without handles)	
Blood's Champion	$7 90
Blood's Dull Finish	8 00
Rough Rider	7 00
Electric Chopper	8 25
Duquesne	5 50
Crown	6 25
Double Bitted (without handles).	
Blood's Champion, 3½ to 4½ lbs. per doz	$10 00
Flint Edge " "	9 75
Perfect Premier " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point per cwt. $3 75

BASKETS.

Clothes.			
Small Willow per doz.	$7 00		
Medium " "	8 75		
Large " "	10 50		
Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

Carpet.	per doz.
No. 13 Tinned Spring Wire	$0 90
No. 11 Spring Wire coppered	1 20
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 50
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch per doz.	$8 50
10-inch "	10 50
Moulders'.	
12-inch "	13 00

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door.	Per doz.
New Departure Automatic Rotary.	$6 00
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	40&10%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs	40	50	75	100
Each	$1.80	2.25	3.38	4.50

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	75%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	50%
Ford's Ship Auger pattern Car	40&10%
Center	25%
Countersink.	
No. 18 Wheeler's per doz.	$1 50
No. 20 " "	2 25
American Snail head "	1 00
" Rose " "	1 00
" Flat "	80
Mayhew's Flat "	1 10
" Snail "	1 25
Dowell	
Russell Jennings	25&10%
Gimlet.	
Standard Double Cut	60%
German Pattern per doz.	$0 60
German "	65
Gouge "	80
Spoon "	1 00
Countersink "	1 20
Reamer.	
Jenning's Square "	2 50
Standard Square "	1 20
German Octagon "	75
Screw Driver.	
No. 7 Common "	50
No. 1 Triumph "	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW

Butchers'.
Standard, ⅞ & 1½-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50
Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%
Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%
Tackle.
Iron Strapped.....70&10%
Com. Steel.....60%

BOARDS. (New List)

Stove.....50&10%
Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 35
Memphis Globe ..... " 2 75
Crystal Glass..... " 4 00
Brass King..... " 3 75
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 2 20
No. 3, lead..... " 2 75
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ⅜x6.....60&10%
Machine, ⅜x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ⅜x4.....60&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%
Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%
Barrel.
Cast.....60%
Wrought.....75&10%
Wrought, bronzed.....60%
Flush.
Wrought.....50&10%
Spring.
Wrought .....75&10%
Wrought, heavy.....70&10%
Square.
Cast.....50&10%
Wrought.....75&10%

BORERS.

Angular.
Miller's Falls.....per doz. $13 00
Bung.
Doz.
Enterprise Mfg. Co 's No 1.....20%
" " " No 2... 20%

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.00 17.50
Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's ..... 50&10%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 3 00

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 00
Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding 70%

BROILERS.

Wire.....70%
No. Crown, Self-basting, 80doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star ..... " 5 00
IXL..... " 6 75
Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burs only.....20%
Tinners' Iron Burs only.....65&5%

BUTTS.

Cast Iron.....70&5%
Wrought Brass (New List)....40&10%
Wrought Steel, Bright.....80&10%
Wrought Steel, Japanned.
Nos. 731 and - .....70&10&10%

CALIPERS.

Double..... .35%
Inside and Outside.....35%
Wing.....30%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75
Toe.
Shoenberger..... per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25
Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz.....$17.50 $22.00 $25.60
Gem Pattern.
Nos..... 400 401 402
Gals..... 5 8 10
Per doz.....$17.50 $21.50 $23.50
Omega Pattern.
Nos. ..... E. 2 E. 3
Gals..... 8 10
Per dozen..... $23.50 $26.50
Jersey Pattern.
Nos..... 80 81
Gals..... 8 10
Per doz..... $23.00 $27.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....60%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85
Bright Ox Chains.
⅜-in. $7.25; ½-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ½ 5/8 ¾
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 7/16 ½ ¾ ⅞
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ⅞ 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65
Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.
Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%
Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list 40%
Brown's, " 40%
Picture Chains.
Light Brass, 3 ft.....per doz. $0 75
Heavy Brass, 3 ft .... " 1 00
Pump Chain
Galvanized, per 100 lbs.....$5 50
Safety Chain.
Brass.....60%
Special Steel Loading Chain.
Inch..... ½ 9/32 5/16
Per 100 lbs.....$16.00 $13.50 $12.50
Stretcher Chains.
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.
Tie-Out Chains.
Brown's.....70&5%
Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 32c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.
Wagon Stay Chains.
Inch..... ½ 5/16 ⅜
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 10c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20
Cold.
Good quality, ⅜ in. and larger.....per lb. .13c
Smaller size per doz.....
Socket, Framing and Firmer.
Clover.....75&10%
Tanged, Firmer.
With handles.....30&5%
Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood,
Gal..... 5 7 10
Each.....$3.90 $4.60 $4.85
Belle, Barrel.....65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%
Carpenters'.
Steel Bar.....25%
Hose.
Sherman's, brass, ¾-in., per doz.. 42c
Double brass, ¾-in., " 90c
Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $8.10.

CLAWS, TACK.

Cast, wood hdle.....per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%
Pot.
Wire.....per doz. $0 75
Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $6.75 $6.25
Royal.....per doz. 2 25
Butchers.
Plumbs.....25%

CLEVISES

Malleable .....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%
Damper.
Standard.....per doz. 65c
Troy..... " 38c
Hame..... " 17

CLOTH

Emery.
Star.....50%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75
Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos... 000 11 15 39 89 108
Per Doz..$.37 .60 1.90 .90 1.15 .80
Nos... 299 320 390 532 620 1400
Per Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters'.....60%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 26c

CORD.

Picture
White Wire (new list) .....85&10%
Sash.
Monarch Braided Flax...per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&30%

COUPLINGS, HOSE.

Brass.....per doz. $1 00
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3¼

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.0
Slaw and Crout.
3-knife Crout.....per doz. $9 7
1-knife Slaw..... " 1 0
2-knife Slaw..... " 2 2
Washer..... " 7 7

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 21
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12,.... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet.....50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.35 $0.95
Planished. " .. 1.40 1 70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size.....5-lb. pkgs. ½ kegs, kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

FILES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 7.
Whisson's Imp..... " 5 2

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 0
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine.....60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1 80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
Jack Frost.
Qts..... 2 3 4 6 8 10
Price .$1.60 1.90 2.20 2.80 3.60 4.65

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12
A White..... " 15
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire..... .....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. 8
Frazer's..... 9
Hub Lightning..... 5 2
Paragon..... 6 7
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....57 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....80&5%
5 lbs. and over.....80&10%
Masons'.
Single and Double Face.....80&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 3
Large..... " 4
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....60-10&5%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.... " $0 85@1 10
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch. . doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 4
Screw Hook and Eye.
½ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
¾ in..... " " 9 75

HOES.

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch... .. ¼&5/16 ⅜ 7/16 ½
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron . . . . per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.... .....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½c

HOOPS, TUB.

Elastic . . . per case of 2 doz.... $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-¾" guar. press			55 lbs.	7¼c
Crane..	"	"	75 "	8¼c
Falcon	"	"	95 "	9¼c
Eagle	"	"	120 "	10¼c
Condor	"	"	150 "	11¼c
High Test	"	"	200 "	12¼c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.			400 lbs.	11¼
Special	"	"	300 "	9¼c
Leader	"	"	100 "	7¼c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise, per set 93
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest . . " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....10%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.00 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'r..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2¾-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality . . . . . per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72 ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate. 42c

MACHINES.

		Without Augers	With Augers
Boring.			
Angular.....per doz.		3 00	4 40
Upright.....	"	2 60	4 00
Leather Riveting.			
Chicago, Pomeroy....per doz.		$9 00	
Excelsior.....	"	2 00	
Handy.....	"	2 00	
Little Giant.....	"	3 00	
Pony, Pomeroy.....	"	7 20	
Washing.			
Winner.....per doz.		54 00	
Keystone.....	"	54 00	
U. S. Steel.....	"	60 00	
Advance, f.o.b.Chicago	"	24 50	

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS.

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
ood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

ood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu
alvanized, per doz.	$2.25	3.00	3.8
apanned.. "	1.75	2.45	3.1

MICA.

irst Quality.....40&5%
econd Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....50&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1½ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 28
Carload Lots..... 2 18
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ¼ 5/16 ⅜ 7/16 ½ 9/16 ⅝
lb 9½c 8c 6½c 5¾c 5½c 5c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ 9/16 ⅝
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin.... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn . . 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches.....	6	8	10	12
Per doz.....	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	.....70&10%	...50&10&2½%
Pittsburgh	..75&10&5%	.....60%
Central	.....75&10%	.....60%
Northwestern	..75&7½%	.....60%
Western	.....70&12½%	.....50&12½%
Tennessee	....70&10%	.....50&12½%
Southern	.....70%	.....50&12½%
Southwestern	....70%	.....50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches....	5	6	7
Smooth, per jt...	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c

Made-up—Inches..	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...18c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7"to6"
	—Cents—			
Battle Axe Blue...	7	7½	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Fin....	15	16	17	18
Duplex Planished.	29	31	37	38
Galvanized, Gal.....	15	16	17	18

It wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@⅜-in., black.....discount, 60%
⅜@½-in., black..... " 60,10&5%
⅜-in. to 6-in, black... " 70%
7-in. to 12-in., black... " 62½%
⅛@⅜-in., galvanized.... " 42%
⅜@½-in., galvanized.... " 50%
⅜-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench .....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....60%
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%

Gas.—Inches..	7	8	10	12
Per doz.....	$3.00	3.50	4.50	5.5

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....60&10&10%
Cook's.....40%
Davis' Iron 25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
Black Eagle, 1-lb. cans, pr. gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans .... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's,each,$4 75@6 25
Gate City.....each, 6 25
Gem.....each,$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot.
.....per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 16
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.....	1	2	3	4
Each.....	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz.$14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 2
Machine.....per lb 19
Saddlers'.
Common .....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 32

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 25
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

Copper	2½ in.	3in.
Per doz	$1 10	$1 40
Rea's Improved Self-Piercing copper, pr doz	2 00	....
Steel, per doz	85	95
Nickel plated	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality .....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb.15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . . per doz , 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in.....	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial.

Nos ..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $0 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per dcz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb ...9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 00
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum.. ... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Glued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker .... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood.
Nos..... 3 2 1 Ex. large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....25c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones....25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¾-lb. " .....doz. 75c
2-ply Jute, ¼-lb. " 14c
3-ply Jute, ¼-lb. " 13c
Jute Wrapping, ¼-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging ¼-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-ply "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6¾c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....20%
Parker's Victor.....20%
Parker's Swivel Base.....20%
Parker's Re-inforced 20%
Parker's X Series.....20%
Parker's Combination 20%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots.
Tinned.... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb :
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
9c 6½c 5c 4½c 4c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads . . per 100 lbs. $2.33 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1 .....85cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

WRINGERS.

No. 22, Guarantee....per doz, $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
No. 100, Rival..... " 28 50

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Advance Radiator Co. ... 14
Albany Foundry Co. ... 6
American Sheet & Tin Plate Co. ... 54
American Steel & Wire Co. ... 66
Armstrong-Blum Mfg. Co. ... 57
Auld & Conger Co. ... 58
Avery Stamping Co. ... 1
Badger Steel Roofing & Corrugating Co. ... 56
Barnett & Co., Jos. ... 61
Bassett & Presley Co. ... 54
Berger Bros. Co. ... 57
Berger Mfg. Co. ... 53
Bernz, Otto ... 57
Bertsch & Co. ... 56
Bicknell Mfg. & Supply Co., The ... 57
Black Silk Stove Polish Works ... 49
Boynton Furnace Co. ... 9
Brammer, H. F., Mfg. Co. ... 65
Brauer, A. G., Supply Co. ... 51
Brilliant Gas Lamp Co. ... 7
Bromwell Brush & Wire Goods Co. ... 59
Burgess Soldering Furnace Co. ... 57
Calander John ... 60
Caldwell Mfg. Co. ... 58
Canton Art Metal Co. ... 56
Canton Mfg. Co. ... 54
Carver File Co. ... 1
Champion Steel Range Co. ... 5
Clark & Co., Geo. M. ... 3
Clark, Quien & Morse ... 53
Clayton & Lambert Mfg. Co. ... 56
Cleveland Castings Pattern Co. ... 51
Clipper Lawn Mower Co. ... 61
Columbus Bolt Works ... 1
Conners, Wm., Paint Mfg. Co. ... 1
Co-operative Fdy. Co. ... 12
Cope, Geo. W., Stove Pattern Wks. ... 51
Dallas & Son, Inc., A. C. ... 61
Denning Wire & Fence Co. ... 58
Dieckmann, Ferdinand ... 56
Diener Mfg. Co., Geo. W. ... 56
Disston, Henry & Sons ... 60
Dixon, Jos., Crucible Co. ... 49
Eller Mfg. Co. ... 58
Elliott Mfg. Co. ... 64
Enterprise Mfg. Co. ... 65
Evans Stamping & Plating Co. ... 51
Eureka Fence Mfg. Co. ... 58
Faultless Stove Works ... 7
Follansbee Bros. Co. ... 68
Foster & Sons Co., Wm. ... 53
Foster Stove Co., The ... 4
Foy, E. A. & Co. ... 61
Friedley-Voshardt Co. ... 53
Globe Ventilator Co. ... 68
Graff Furnace Co. ... 9
Gray's School ... 58
Green Co., A. H. ... 62
Green Foundry & Furnace Works ... 13
Griffin Mfg. Co. ... 64
Griffiths Charcoal Iron Mills ... 55
Harrington & King Perforating Co. ... 61
Haynes-Langenberg Mfg. Co. ... 10
Heller, W. B. ... 62
Hemp & Co. ... 68
Henry & Scheible Co. ... 14
Hess-Snyder Co. ... 14
Hooper, C. N. ... 51
Howes Co., S. M. ... 63
Hussey & Co. ... 58
Imperial Brass Mfg. Co. ... 60
Inland Steel Co. ... 52
Iwan Bros. ... 54
Janesville Barb Wire Co. ... 59
Keighley, Metal Ceiling Co., S. ... 52
Kellogg-Mackay Co. ... 7
Kelsey Heating Co. ... 2
Keystone Nail Co. ... 60
Kimball Bros. Co. ... 59
La Crosse Steel Roofing Co. ... 55
Lane, Ira G. ... 56
Lawson Mfg. Co. ... 1
Lennox Furnace Co. ... 11
Lenox Hotel ... 52
Lufkin Rule Co. ... 60
Maher & Son Lightning Rod Co. ... 61
Merchant & Evans Co. ... 55
Meyer, F. Bro. Co. ... 17
Meyer Fdy. & Mfg. Co. ... 57
Meyer Furnace Co. ... 12
Michigan Safety Furnace Pipe Co. ... 17
Michigan Show Case Co. ... 64
Milbradt Mfg. Co. ... 64
Milwaukee Corrugating Co. ... 55
Monitor Stove & Range Co. ... 18
Monroe Foundry & Furnace Co. ... 14
Mt. Penn Stove Works ... 7
Mueller, L. J., Furnace Co. ... 13
Munsell, & Co., Eugene ... 7
National Sheet Metal Roofing Co. ... 58
National Wire Cloth Co. ... 59
New England Enameling Co. ... 63
Niagara Machine & Tool Wks. ... 57
Nickel Plate Stove Polish Co. ... 51
North Bros. Mfg. Co. ... 62
Obermayer, S. Co. ... 51
Peck, H. E. ... 48
Perfection Wrench Co. ... 49
Pittsburgh Steel Co. ... 59
Pullman Mfg. Co. ... 1
Quality Stove & Range Co. ... 6
Quincy Pattern Co. ... 51
Ralt & Co., Walter S. ... 8
Reid-Edelmuth Mfg. Co. ... 62
Ringen Stove Co. ... 6
Robinson Mfg. Co., J. M. ... 67
Rock Island Tool Co. ... 61
Ruby Chemical Co. ... 58
Safety Door Hanger Co. ... 1
Schwab, R. J. & Sons Co. ... 15
Smith Co., Chas. ... 15
Smith Co., C. F. ... 58
Smith & Hemenway Co ... 60
Sperry, D. R. Co. ... 51
Standard Arms Co. ... 67
Standard Horse Nail Co. ... 59
Stanley Rule & Level Co. ... 60
Star Bucket & Pump Co. ... 68
Star Enameling & Stamping Co ... 68
Sterling Foundry Co. ... 54
Stove & Range Co. of Pittsburgh ... 2
Stuber & Kuck ... 68
Sturges & Burn Mfg. Co. ... 62
Sullivan-Geiger Co. ... 68
Sykes Steel Roofing Co. ... 58
System ... 49
Taylor & Boggis Fdy. Co. ... 63
XXth Century Heat. & Vent. Co. ... 12
Utica Heater Co ... 11
Van Range Co. John ... 5
Vedder Pattern Works ... 51
Wagner C. DeWitt ... 54
Walworth Run Foundry Co. ... 15
Ward-Dickey Steel Co. ... 68
Warren, J. D. ... 62
Weiss, H. & Co. ... 57
Weller Pattern Co. ... 51
Wheeling Corrugating Co. ... 52
Whitacre, J. E. Mfg. Co. ... 68
White Lily Mfg. Co. ... 64
Wise Furnace Co. ... 10
Youngstown Furnace & Supply Co. ... 13

CLASSIFIED LIST.

Ammunition

Standard Arms Co., Wilmington, Del

Augers—Post Hole

Iwan Bros., Streator, Ill

Barb Wire

American Steel & Wire Co., Chicago, Ill
Janesville Barb Wire Co., Janesville, Wis

Boilers—Steam

Advance Radiator Co., Syracuse, Ind
Boynton Furnace Co., Chicago, Ill
Kellogg-Mackay Co., Chicago, Ill

Boilers—Wash

Elliott Mfg. Co., Warren, Ill

Boiler Handles

Berger Bros. Co., Philadelphia, Pa

Bolts

Columbus Bolt Wks., Columbus, O

Boxes—Hardware

Green Co., A. H., New York

Brakes—Cornice

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg. Co., J. M., Cincinnati

Brass and Copper

Hussey & Co., C. G., Pittsburg, Pa

Brushes

Bromwell Brush & Wire Goods Co., Cincinnati, O

Cans

Elliott Mfg. Co., Warren, Ill
Stuber & Kuck, Peoria, Ill

Carpenters' Tools

Disston & Sons, Henry, Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill
North Bros. Mfg. Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
Rock Island Tool Co., Rock Island, Ill
Smith & Hemenway Co., New York, N.Y
Stanley Rule and Level Co., New Brittain, Conn

Carriage Forgings

Columbus Bolt Works, Columbus, O

Ceilings

Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Foster, & Sons Co., Wm. Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Keighley Met. Ceiling Co., Pittsburg, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Wheeling Corrugating Co., Wheeling, W. Va

Chimney Caps

Sterling Foundry Co., Sterling, Ill

Chimney Tops

Eureka Fence Mfg. Co., Richmond, Ind
Iwan Bros., South Bend, Ind
Sterling Foundry Co., Sterling, Ill

Cement—Roofing

Auld & Conger Co., Cleveland, O
Conners, Wm. Paint Mfg. Co., Troy, N. Y

Cement—Plumbers

Obermayer, Co., S. Cincinnati, O

Coil Springs

Pullman Mfg. Co., Rochester, N Y

Collar Edging Rolls

Wagner, C. DeWitt, Cedar Rapids, Ia

Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

Conductor Pipe

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis

Copper and Brass

Hussey & Co., C. G., Pittsburg, Pa

Core Compound

Obermayer Co., S., Cincinnati, O

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co. Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis

Cornice Brakes

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Wks., Buffalo, N. Y.
Robinson, Mfg. Co., J. M., Cincinnati, O

Counters

Heller & Co., W. B. Montpelier, O

Couplings—Solderless

Modern Improvements Mfg. Co. Brooklyn, N. Y.

Crimping Machines

Robinson, Mfg. Co., J. M., Cincinnati, O

Cupolas

Advance Radiator Co., Syracuse, Ind

Cutlery

Simmons Hdw. Co., St. Louis, Mo
Smith & Hemenway Co., New York, N.Y

Cut Offs—Rain Water

La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee. Wis
Sullivan-Geiger Co., The Indianapolis, Ind.

Dampers

Howes Co., S. M. Boston, Mass
Taylor & Boggis Fdy. Co., Cleveland, O

Door Hangers

Griffin Mfg. Co., Erie, Pa
Safety Door Hanger Co., Ashland, O

Door Holders

Caldwell Mfg. Co, Rochester, N. Y

Eaves Trough

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Whitacre, J. E. Mfg. Co., Rockford, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Eave Trough Hangers

Canton Mfg. Co., Canton, Ohio
Eureka Fence Mfg. Co., Richmond, Ind

Elbows—Conductor Pipe

Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Dieckmann, Ferdinand. Cincinnati, O.
Eller Mfg. Co., Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis.
Wheeling Corrugat'g Co., Wheeling, W. Va

Elevators

Kimball Bros. Co., Council Bluffs, Ia

Enameled Ware

Elliott Mfg. Co., Warren, Ill
New England Enameling Co., New York, N. Y
Star Enameling & Stamping Co., Pittsburgh, Pa

Fencing—Wire

American Steel & Wire Co., Chicago, Ill
Denning Wire & Fence Co., Cedar Rapids Ia
Eureka Fence Mfg. Co., Richmond, Ind
Janesville Barb Wire Co., Janesville, Wis
Pittsburgh Steel Co., Pittsburgh, Pa

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Fire Arms

Standard Arms Co., Wilmington, Del

Fixtures—Store

Warren Mfg. Co., J. ., Chicago, Ill

Flue Stoppers

Stuber & Kuck, Peoria, Ill

Food Choppers

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Forming Rolls

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y

Foundry Supplies

Obermayer, S. Co., Cincinnati, O

Fuel Chutes

Sterling Foundry Co. Sterling, Ill

Furnace Cement

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Furnace Rings

Walworth Run Fdy. Co., Cleveland, O

Furnaces—Hot Air

Boynton Furnace Co., Chicago, Ill
Co-operative Fdy. Co., Rochester, N. Y
Chicago, Ill
Graff Furnace Co., New York, N. Y
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Hess-Snyder Co., Massillon, O
Kelsey Heating Co., Syracuse, N. Y
Lennox Furnace Co., Marshalltown, O
Meyer Furnace Co., Peoria, Ill
Monroe Fdy. & Furn. Co., Monroe, Mich
Mt. Penn Stove Works, Reading, Pa
Ralt & Co., Walter S. Chicago, Ill
Schwab, R. J. & Sons Co., Milwaukee, Wis
Smith Co., Chas. Chicago, Ill
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
XXth Century Heat. & Vent. Co., Akron, Ohio
Utica Heater Co., Utica, N. Y
Wise Furnace Co., Akron, O
Youngstown Furn. & Supply Co., Youngstown, O

Furnaces—Soldering

Bernz, Otto Newark, N. J
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W. Chicago, Ill
Meyer Fdy. & Mfg. Co., South Bend, Ind

Furnace Pipe and Fittings

Green Fdy. & Furn. Wks., Des Moines, Ia
Meyer & Bro., Co., F. Peoria, Ill
Michigan Safety Furnace Pipe Co., Detroit, Mich

Galvanized Ware

Elliott Mfg. Co., Warren, Ill
New England Enameling Co., New York, N. Y
Wheeling Corr. Co., Wheeling, W. Va

Gas Machines

Whitacre Mfg. Co., J. E., Rockford, Ill

Gas Stoves

Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

Gasoline Stoves

Clark & Co., Geo. M. Chicago, Ill
Ringen Stove Co., St. Louis, Mo

Gates—Automatic

Eureka Fence Mfg. Co., Richmond, Ind

Grain Bins

Denning Wire & Fence Co., Cedar Rapids, Ia

Hangers—Garment

Pullman Mfg. Co., Rochester, N.Y

Hardware Jobbers

Clark, Quien & Morse, Peoria, Ill

Hardware Specialties

Butler Bros., Chicago, Ill
Caldwell Mfg. Co., Rochester, N. Y
Enterprise Mfg. Co. of Pa., Philadelphia, Pa
Lane, Ira G. New York, N. Y
Pullman Mfg. Co, Rochester, N. Y
Smith & Hemenway Co., New York, N. Y
Sterling Foundry Co., Sterling, Ill
Sturges & Burn Mfg. Co., Chicago, Ill
Taylor & Boggis Foundry Co. Cleveland, Ohio

Heaters—Hot Water

Detroit Heating & Lighting Co., Detroit, Mich

Hinges
Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill

Hollow Ware
Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Il.

Horse Nails
Standard Horse Nail Co., New Brighton, Penna

Horse Shoes
American Steel & Wire Co., Chicago, Ill

Hotels
Lenox Hotel Buffalo, N. Y

Ice Cream Freezers
New England Enameling Co., New York, N. Y
North Bros. Mfg. Co., Philadelphia, Pa
Reid-Edelmuth Mfg. Co., Brooklyn, N. Y
Sturges & Burn Mfg. Co., Chicago, Ill

Iron Enamel
Black Silk Stove Polish Works Sterling, Ill
Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils
Avery Stamping Co. Cleveland, O
Elliott Mfg. Co., Warren, Ill
New England Enameling Co., New York, N. Y
Star Enameling and Stamping Co., Pittsburgh, Pa

Ladders—Shelf
Calander, John St. Paul, Minn
Milbradt Mfg. Co., St. Louis, Mo

Lard Presses
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Lawn Mowers
Clipper Lawn Mower Co., Dixon, Ill

Lighting Systems
Brilliant Gas Lamp Co., Chicago, Ill
Detroit Heating & Lighting Co., Detroit, Mich
Whitacre Mfg. Co., J. E., Rockford, Ill

Lightning Rod
Barnett & Co., Jos., Riverside, Ia
Foy, Edw. A. & Co., Cincinnati, O
Maher & Son Lightning Rod Co., Preston, Ia

Metal—Perforated
Harrington & King Perforating Co., Chicago, Ill

Metal Polish
Black Silk Stove Polish Works, Sterling, Ill
Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles
Canton Art Metal Co., Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica
Munsell & Co., Eugene Chicago, Ill

Milk Cans
Sturges & Burn Mfg. Co., Chicago, Ill

Miters
Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper
Hussey & Co. C. G., Pittsburg, Pa
Keystone Nail Co., Pittsburg, Pa

Nails—Wire
Janesville Barb Wire Co., Janesville, Wis

Nuts
Columbus Bolt Works Columbus O

Paints and Paint Specialties
Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N.J

Pencils
Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Pipe—Furnace
Meyer & Bro. Co., F. Peoria, Ill
Michigan Safety Furnace Pipe Co., The Detroit, Mich

Pipe Hangers
Lane, Ira G., New York, N. Y

Plungers
Berger Bros. Co., Philadelphia, Pa

Post Hole Diggers
Iwan Mfg. Co., South Bend, Ind

Pumps
Star Bucket Pump Co., St. Louis, Mo

Punches
Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Bicknell Mfg. & Supply Co., Janesville, Wis
Niagara Machine & Tool Works, Buffalo, N.Y
Robinson, Mfg. Co., J. M., Cincinnati, O
Weiss & Co., H. New York, N. Y

Putty—Stove
Connors Wm., Paint Mfg. Co., Troy, N.Y

Radiators
Advance Radiator Co., Syracuse, Ind
Kellogg-Mackay Co., Chicago, Ill

Rasps
Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Rat Traps
Bromwell Brush & Wire Goods Co., Cincinnati, O

Razors
Smith & Hemenway Co., New York, N.Y

Registers
Henry & Scheible Co., Cleveland, O
Schwab & Sons Co., Milwaukee, Wis
Walworth Run Fdy. Co., Cleveland, O

Rivets
Columbus Bolt Works, Columbus, O

Roasters
Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies
Auld & Conger Co., Cleveland, O

Roofing—Iron and Steel
Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Burton, W. J. Co., Detroit, Mich
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement
Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N.Y

Roof Paint
Dixon, Jos. Crucible Co., Jersey City, N.J

Rules
Lufkin Rule Co., Saginaw, Mich

Sash Balances
Pullman Mfg. Co., Rochester, N.Y

Sausage Stuffers
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Saw Sets and Saws
Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N.Y

Schools—For Sheet Metal Pattern Drafting
Gray's School, New York, N. Y

Screens—Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks
Pullman Mfg. Co., Rochester, N. Y

Screws
Columbus Bolt Works, Columbus, O

Screw Drivers
North Bros. Mfg. Co., Philadelphia, Pa

Shears
Bertsch & Co., Cambridge City, Ind
Bicknell Mfg. & Supply Co., The Janesville, Wis
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia

Sheets—Black and Galvanized
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished
American Sheet & Tin Plate Co., Pittsburgh, Pa
Follansbee Bros., Pittsburg, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Inland Steel Co., Chicago, Ill
Sykes Steel Roofing Co., Chicago, Ill
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel
American Sheet & Tin Plate Co., Pittsburgh, Pa
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Inland Steel Co., Chicago, Ill
Sykes Steel Roofing Co., Chicago, Ill

Sheet Metal Ornaments
Berger Mfg. Co., Canton, O
Foster, Wm. & Sons Co., Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Keighley Metal Ceiling Co., Pittsburg, Pa
La Crosse Steel Roofing and Corrugating Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis

Shelf Boxes
Green & Co., A. H., New York, N. Y
Heller & Co., W. B. Montpelier O

Shelving
Heller & Co., W. B. Montpelier, O
Warren Mfg. Co., J. D., Chicago, Ill

Shovels
Avery Stamping Co., Cleveland, O

Show Cases
Michigan Show Case Co., Detroit, Mich

Siding
Foster & Sons Co., Wm. Springfield, Ill
Milwaukee Corrugating Co., Milwaukee, Wis

Sifters
Stuber & Kuck, Peoria, Ill

Skylights
Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis
Sykes Steel Roofing Co., Chicago, Ill

Skylight Gearing
Weiss, H. & Co., New York, N.Y

Slate Roofing
Auld & Conger Co., Cleveland, O

Slating Nails
Hussey & Co., C. G., Pittsburg, Pa

Soldering Fluxes
Ruby Chemical Co., Johnston, Ohio

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal
Avery Stamping Co., Cleveland, O

Steel
American Steel & Wire Co., Chicago, Ill

Store Fixtures
Heller & Co., W. B. Montpelier, O

Stoves and Ranges
Albany Foundry Co., Albany, N. Y
Champion Steel Range Co., Cleveland, O
Clark & Co., Geo. M. Chicago, Ill
Co-operative Fdy. Co., Rochester, N. Y
Chicago, Ill
Faultless Stove Works, St. Charles, Ill
Foster Stove Co., The, Ironton O
Monitor Stove & Range Co., Cincinnati, O
Mt. Penn Stove Works, Reading Pa
Quality Stove & Range Co., Belleville, Ill
Ringen Stove Co., St. Louis, Mo
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
Van, John, Range Co., Cincinnati, O

Stove Mats
Stuber & Kuck, Peoria, Ill

Stove Patterns
Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N Y
Weller Pattern Co. Quincy, Ill

Stove Pipe
Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Polish
Black Silk Stove Polish Works, Sterling, Ill.
Nickel Plate Stove Polish Co., Chicago, Ill

Stove Putty
Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J

Stove Repairs
Brauer, A. G., Supply Co., St. Louis, Mo
Manufacturers Stove Repair Co., Chicago, Il

Stove Trimmings
Advance Radiator Co., Syracuse, Ind

Sugar Kettles
Sperry, D. R. Co. Batavia, Ill

Supplies—Foundry
Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'
Brauer, A. G., Supply Co., St. Louis, Mo

Tapes
Lufkin Rule Co., Saginaw, Mich

Technologist
Hooper, C. N. Dubuque, Iowa

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated
Harrington & King Perforating Co., Chicago, Ill

Tinners' Furnaces
Bernz, Otto Newark, N. J
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W., Chicago, Ill
Meyer Fdy. & Mfg. Co., South Bend, Ind

Tinners' Tools
Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Bicknell Mfg. & Supply Co., Janesville, Wis
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia
Weiss & Co., H., New York, N. Y

Tinplate
American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware
New England Enameling Co., New York, N. Y

Tinware Trimmings
Berger Bros. Co., Philadelphia.

Tools, Etc.
North Bros. Mfg. Co., Philadelphia, Pa
Perfection Wrench Co., Port Chester, N. Y
Rock Island Tool Co., Rock Island, Ill
Stanley Rule & Level Co., New Britain, Conn

Tools—See Carpenters' Tools

Tools—Linemen's
Smith & Hemenway, New York, N.Y

Trowels
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Heavy Tin
Dieckmann, Ferdinand, Cincinnati, O

Ventilators
Berger Mfg. Co., Canton, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co. Canton, O
Eller Mfg. Co. Canton, O
Eureka Fence Mfg. Co., Richmond, Ind
Friedly & Globe Ventilator Co., Troy, N. Y
Iwan Mfg. Co., South Bend, Ind
Merchant & Evans Co., Philadelphia, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Pullman Mfg. Co. Rochester, N. Y
Sterling Foundry Co., Sterling, Ill

Vises
Rock Island Tool Co., Rock Island, Ill

Washers
Columbus Bolt Works, Columbus, O

Washing Machines
Brammer, H. F., Mfg. Co., Davenport, Ia
White Lily Mfg. Co., Davenport, Ia

Wire
American Steel & Wire Co., Chicago Ill
National Wire Cloth Co., Niles, Mich

Wire Goods
Bromwell Brush & Wire Goods Co., Cincinnati, O
Denning Wire & Fence Co., Cedar Rapids, Ia
Eureka Fence Mfg. Co., Richmond, Ind
Janesville Barb Wire Co., Janesville, Wis
National Wire Cloth Co., Niles, Mich
Pittsburgh Steel Co., Pittsburgh, Pa

Wire Stretchers
Smith Co., C. F. DeKalb, Ill

Wrenches
Perfection Wrench Co., Port Chester, N. Y

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, business for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS OFFICIAL copy "PATENT LAWS" United States sent on receipt ten cents stamps.
HUBERT E. PECK, Patent Attorney, 629 F Street, Washington, D. C.

To Trade—Attention! Hardwaremen who have a set of good tinner's tools and tinner's materials lying idle in their stores and want to trade them for cheap village property that pays good interest, address P. O. Box 377, Canton, South Dakota. 9-3t

For Sale—Clean $4,000 stock of hardware, including tinner's tools and fixtures. Good location in the county seat of Wisconsin; population 2,000, and only one other hardware store. This stock turned itself four times last year and can be made to do much better. The business is sure, and can be bought right. Address P 39, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 9-3t

For Sale—Plumbing, heating and sheet metal business, including stock, tools, fixtures, etc., invoicing about $2,000. Doing $10,000 yearly business. Only shop in town of 1,500. Located in the fruit belt of western Colorado. This is a good proposition. Will sell at invoice price for cash only. Address The Paonia Plumbing Co., Paonia, Colorado. 8-3t

For Sale—Tinshop at Walnut Ridge, Arkansas; a good town of 3,500; good location; plenty work. Good reason for selling. Address Tinner, Walnut Ridge, Arkansas. 8-3t

For Sale—An old established business, hardware, stoves and house furnishing goods, with tin and furnace shop in connection. Located in the most progressive city of northern Illinois. A liberal discount for cash; will invoice about $4,500. Apply to Chas. A. Davis, Sterling, Illinois. 8-3t

A good chance for a tinner. I have a hardware store with tinshop and want to rent the shop and tools to a good tinner. My store is on one of the best streets in the city. Lots of furnace work and all kinds of jobbing. Fine chance. Address W. A. Melody, 115 South Genesee St., Waukegan, Illinois. 7-3t

TINNER'S TOOLS.

Wanted—One ten-foot cornice brake in good condition. Send description and price. Address Wm. Warnock Co., Sioux City, Iowa. 9-3t

Wanted — Second-hand 6" or larger beading machine; must be in good working order and cheap for cash. Address O. H. Neuenfeldt, Box 95, Enderlin, North Dakota. 9-3t

For Sale—One O. K. cornice brake; good condition; will sell at half price; write for full information and terms. Address New York Hardware Co., Guthrie, Oklahoma. 9-3t

For Sale—20" tin folder; 30" rollers; 30" Wright's S. P. folder; No. 3 beading machine; hollow mandrel; blow horn stake; hatchet stake. Address P-34, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 8-3t

For Sale—One P. S. & W. Swedge or Beading Machine. Large size. List price $30. Cheap for cash. Address D. W. Isham, Lansing, Kansas. 7-3t

For Sale—One brass mounted groover with standard 20-inch; new, only shop worn. One 30-inch iron bottom sheet iron folder. Address W. M. Allen, 608 West North St., Raleigh, North Carolina. 7-3t

HELP WANTED.

Wanted—Tinner and all around man for town of about 900 population in northern Illinois. One who has had some experience in plumbing preferred. Address Wm. O. Lee & Co., Huntley, Illinois. 9-3t

Tinner Wanted—Good tinner; must be married man; state wages expected; steady work. Address P 38, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 9-3t

Wanted—Good all around man, tinner, plumber, steam, hot water and furnace heating work. Steady job for right man; no boozer; give references and wages expected. Address Emmetsburg Hdw. Co., Emmetsburg, Iowa. 9-3t

Wanted—At once, first-class all around tin and sheet iron worker for in and outside work. Only good, steady and reliable man need apply; steady job the year around to the right man; when answering please state wages, etc. Address P 40, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 9-3t

Wanted—Tinner and hardware clerk combined, one that can do all that comes to a country shop, also pump repairing. State wages and give references in first letter. Can use man at once. Address J. W. Leighton, Livermore, Iowa. 9-3t

Wanted—Experienced furnaceman and tinner in eastern Iowa. Good wages; steady work the year around; married man preferred. Address P 41, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 9-3t

Tinner Wanted—In a nice clean town of 1,000 inhabitants. Man who is a tinner and capable of doing a good job on furnace and plumbing work; also pump repairing. Address P-28, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 8-3t

Tinner Wanted—By March 1st, an all around tinner, having some knowledge of plumbing and furnace work, such as usually comes to a shop in small country town. Will be expected to clerk in store when not otherwise employed. Good steady job to the right man; no boozer; German preferred. State wages in first letter and send references. Address C. W. Preston, Centre Junction, Iowa. 8-3t

Tinner Wanted—A young man as a tinner; one familiar with hardware and stove business; good wages and steady job for right party. Address P-33, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 8-3t

Wanted—In Wisconsin, a first-class cornice maker. Must be strictly sober and reliable. To such a party, I will give an interest in the business. Address P-36, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Wanted—Man with experience in tinshop and some knowledge of hardware. Good wages to right man. German preferred. Address P-37, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Salesman Wanted—To sell a side line on liberal commission. Three lines of steel ranges, in states of Iowa, Minnesota, Wisconsin and Indiana. These have the best selling points; a snap. Address Co-Operative Stove Co., Bloomington, Ill. 8-6t

Wanted, Tinner—And all around man for small town in southern Wisconsin. Single man with some experience in plumbing preferred. Steady employment to right party. Address Marvin Hardware Co., Oregon, Wisconsin. 7-3t

Wanted, Tinner—One who is good at inside and outside work. State salary wanted. State references in first letter from former employers. Address Frank Berryhill, Ardmore, Oklahoma. 7-3t

Wanted—All around man that can handle any kind of heating or plumbing, also general tin work. Must be reliable, steady man. Address P-26, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 7-3t

Wanted, Tinner—One that has some experience in furnace work and plumbing. Married man preferred. Must have good habits; no drinking allowed. Will pay man all he is worth and want one that will take hold and is willing to work. Address G. T. Mueller & Son, Columbus, Wisconsin. 7-3t

Wanted—Good all around tinner who understands plumbing, also steam, hot water and hot air heating. Steady job and good wages to one who can fill this position. Address Iowa Hardware Co., Vinton, Iowa. 7-3t

Wanted—All around sober and industrious tinner who is familiar with plumbing, furnace work, tin roofing, etc. Population 2,000. Address, stating wages, etc., J. Keonigstein, Eminence, Kentucky. 7-3t

Wanted — Good all around man for hardware, furniture and implement store. Must be good salesman and speak German or Swedish. Must understand implements or undertaking or both. State fully age, ability, experience and wages expected. Address Wachter Hardware Co., Pender, Nebraska. 7-3t

Wanted—First-class all around man who can do tinwork, hot air heating, steam heating and hot water heating. One who is capable of taking charge of shop and this department of the business in connection with a hardware store. Must have tools and be a hustler. Married man preferred. State wages for steady position. No cheap men or slow ones need apply. Town of 6,000 in South Dakota. Address P-24, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 7-3t

SITUATIONS WANTED.

Situation Wanted—By tinner; 15 years' experience in furnace, hot water heating, plumbing, gas fitting, sheet metal work and hardware. Can estimate and lay out the work; speaks German; sober; married; must have steady work. Please state wages in first letter. Address W. S., 116 Mt. Vernon St., Oshkosh, Wisconsin. 9-3t

Situation Wanted — Handy man, 15 years' experience at heating, range, steam, hot water fitting and sanitary plumbing. Can do rough coating and white coating, lay bricks and tile work. Best recommendation. Married; age 33 years. Address 2024 S. Simpson St., West Philadelphia, Pennsylvania. 9-3t

Situation Wanted—By good all around tinner and furnace man; hot water heating and ordinary plumbing; 19 years' experience; 39 years old. Sober; married; speak German. Steady job only. Address P-30, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Situation Wanted—By married man 30 years old who can clerk in store, do roofing, spouting and repairing. No boozer; state wages. Address P-29, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Situation Wanted—As traveling salesman for hardware or sheet metal house; 18 years' experience in retail store and at tinner's trade. Best of references; married man. Address P-31, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Situation Wanted—As hardware clerk and tinner; 18 years' experience; married man; sober; honest and best of references. Address P-32, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Situation Wanted—By young man 26 years old; 8 years' experience in tin shop and general repairing. Two or three years' experience in plumbing. No boozer; steady job only. Willing to go any place. Address P-35, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 8-3t

Situation Wanted—As foreman of tinshop, near Chicago. Or capital wanted to start creamery supply business. I have the ability to sell goods, also have patterns and some tools. Address P-27, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 7-3t

Situation Wanted—Tinner, 35 years of age, with 17 years' experience, can do (anything that comes in a harware or tinshop) tinning, hot air work, heating and plumbing would like a situation in or 15 miles from Chicago with some good firm by March 1 or April 1. Can give best of references. Would consider taking an interest in same. Not afraid of work. Married man, sober, honest and reliable. Can speak German. Address P-25, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 7-3t

SPECIAL NOTICES.

FOR SALE

Good clean Hardware Stock with Tinshop. Located in one of the large Wisconsin towns. Invoices about $4000. Splendid trade but sales can be doubled by devoting more time to the business. Owner has manufacturing interests which require his entire attention. Cash only. Address Retailer, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 22-ufn

SPECIAL NOTICES.

SALESMAN WANTED.

To sell tinware and house furnishing hardware on commission to the trade. Address with full particulars. B-90 care THE AMERICAN ARTISAN, 355 Dearborn St,. Chicago, Ill. 9-1t

SALESMEN

covering the hardware and sheet metal trade can earn liberal commission by soliciting subscriptions to THE AMERICAN ARTISAN as a side line. Write for agents' terms. THE AMERICAN ARTISAN, 355 Dearborn St., Chicago.

FOR SALE

Steel Range Factory, thoroughly equipped in thriving town of 7500, located in the most fertile valley of Western Washington. Only one on coast. This is a bargain. Reason, owner's death. Address Box 497, Payallup, Washington. 7-4t.

STOVE SALESMEN WANTED

For a complete modern line of Gas, Coal and Wood Stoves. Territory—One for Western New York and Pennsylvania, also one for Indiana and Eastern Illinois. Address B-63, care THE AMERICAN ARTISAN, 355 Dearborn street, Chicago, Illinois. 4-ufn.

SALESMEN

WANTED — To sell the best Combination Can Opener, Knife and Shear Sharpener on the market. Sells on sight. Can be carried as side line. Sample mailed for 25 cents. Terms dealers. Address Atlas Stamping and Plating Works, 58 West Jackson Boulevard, Chicago, Illinois. 1-13t

Stove Salesman Wanted.

One each for Indiana, Michigan and Illinois to sell the best line of cast ranges and cast oaks on the market. Commission basis. May be used as side line. Address J. Woodruff & Son, Salem, Ohio. 8-ufn

FOR SALE

An old established Hardware Business and modern residence in a good live town in Western Wisconsin. Annual sales about $18,000. It will take $10,000 to buy. Good reasons for selling. Address "Hardware, Wisconsin," care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 8-2t

TO EXCHANGE.

Good improved farm, well located, for hardware and implements. Give amount of stock and value of real estate in first letter. Address B-89, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Ill. 8-4t

WANTED

First-class furnace and boiler salesman to travel out of Chicago and make Western Indiana, Illinois and South Wisconsin. Prefer one who has had experience in this territory. Address, with full particulars B-85, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 7-4t.

When Buying Stove Polish

do you take into consideration that

BLACK SILK

makes a black, silky, glossy, hard, glassy shine, does not rub or burn off like others, and goes four times as far? If not, we hope you will buy a stock from your jobber and be convinced.

BLACK SILK STOVE POLISH WORKS, Sterling, Ill.

Position Wanted

Experienced stove salesman would like to correspond with stove manufacturer in need of man in Chicago or West. Address B 62, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 24-ufn.

WANTED

I know of many splendid openings for new stores and I want to get in touch with those who are looking for such openings. I also know something about a retail line which will pay handsome profits on a comparatively small investment. I am a specialist in locations, but make no charge for my services. Write me today for full particulars. EDWARD B. MOON, No. 7 Randolph Street, Chicago, Illinois.

Business Chance

In a city with 250,000 population.

I wish a man having business ability and about $8,000 cash to enter into a business relation with me in the manufacture of warm air furnaces, steel ranges, radiator shields and combination, family clothes dryer with laundry stove.

I own complete patterns for all of the above lines, also patents.

Since establishing my business eight years ago I have sold my clothes dryers and radiator shields to both consumers and dealers, but have only done a retail furnace business. Now I wish to incorporate and add a wholesale furnace and range department.

I wish a man, with no other business ties, who can devote his entire attention to this business.

Address Business Chance, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 9-2t

Subscription Solicitors Wanted

WANTED—Agents to solicit subscriptions to the THE AMERICAN ARTISAN in every state in the Union. Can be handled as a side line by agents who sell stoves and sheet metal wares. Write for agent's terms and state what territory you can cover.

SUBSCRIBERS who can spare a few hours a week can make money on the side by soliciting subscriptions in their vicinity or among their fellow workers. Write for particulars.

SAMPLE COPIES FREE UPON REQUEST

THE AMERICAN ARTISAN
355 Dearborn St., Chicago

Will you accept this business book if we send it free?

Sign and mail the coupon below. Send no money! Take no risk!

One hundred and twelve of the world's master business men have written ten books—2,079 pages—1,497 vital business secrets, ideas, methods. In them is the best of all that they know about

—Purchasing —Salesmanship —Position-Getting
—Credits —Advertising —Position-Holding
—Collections —Correspondence —Selling Plans
—Accounting —Man-Handling —Handling Customers
—Cost-keeping —Man-Training —Business Generalship
—Organization —Office Systems —Competition Fighting and hundreds and hundreds of other vital business subjects.
—Retailing —Short-cuts and Methods for every line and department
—Wholesaling
—Manufacturing

A 9,059-word booklet has been published describing, explaining, picturing the work. Pages 2 and 3 tell about managing businesses great and small; pages 4 and 5 deal with credits, collections and with rock-bottom purchasing; pages 6 and 7 with handling and training men; pages 7 to 12 with salesmanship, with advertising, with the marketing of goods through salesmen, dealers and by mail; pages 12 to 15 with the great problem of securing the highest market price for your services—no matter what your line; and the last page tells how you may get a complete set—bound in handsome half morocco, contents in colors—for less than your daily smoke or shave, almost as little as your daily newspaper.

Will you read the book if we send it free? Send no money. Simply sign the coupon.

The System Co., 151-153 Wabash Ave., Chicago

If there are, in your books, any new ways to increase my business or my salary, I should like to know them. So send on your 16-page free descriptive booklet. I'll read it. 182-26

Name_____
Address_____
Business_____
Position_____

YOU

need a Tinner, Furnace Man or Hardware Clerk. A want ad in

THE AMERICAN ARTISAN

That's all that's necessary to solve the problem.

The expense and annoyance of painting will not recur every year or two if you use

DIXON'S SILICA-GRAPHITE PAINT

the "Proven Shield for Steel Work." Durability records in all climates; write for a few

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

Dealers! This Is For You

A new book, just published, which should have a place in every store:

THE AMERICAN ARTISAN ADVERTISING MANUAL

This is a book worth many times its original cost to any dealer who advertises. In its 278 pages there are exactly 228 illustrations of advertisements that have actually been inserted by dealers all over the country in their local papers.

The advertisements are all comprehensively criticised—their weaknesses indicated—their strong features favorably commented on—to the end that any dealer by applying the countless hints and suggestions to his own copy can greatly increase the effectiveness of his advertisements.

If your advertisements are not producing the desired results, consult this book for the reason. It will not only **give** the reason, but show you how to avoid the mistakes you have been making.

Are your ads unattractive? The subject of "display" is given space throughout the book.

Is there **any** question concerning your advertising upon which you would like expert opinion? THE AMERICAN ARTISAN ADVERTISING MANUAL will supply it.

It is an ever-ready reference book and no enterprising dealer should be without it.

The book is elegantly gotten up in a durable manner and is cloth bound.

The price is $3.50 per copy and can be obtained from your book seller or from

DANIEL STERN, Publisher

355 Dearborn Street **Chicago, Illinois**

THE RIGHT KIND
of Oven Thermometer Is

THE "ACME"

THE "ACME"

MADE BY EVANS STAMPING AND PLATING COMPANY TAUNTON, MASS.
Western Agent, C. H. MATTHEWS, Detroit, Mich.

STOVE DEALERS' SUPPLIES AND
STOVE REPAIRS
Lowest Prices Courteous Treatment Prompt Shipments
GIVE US A TRIAL
A. G. BRAUER SUPPLY CO.
316-318 N. Third St., ST. LOUIS, MO

SPERRY'S SUGAR KETTLES

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS Batavia, Ill.

Large 10 oz. Can.

We Make It!
The BEST Air Drying Iron Enamel Made.
Try a 1-Dozen Case From Your Jobber.
Nickel Plate Stove Polish Co.
CHICAGO

$100 IN GOLD FOR WINDOW DISPLAYS SEE PAGE 16.

We have been manufacturing
"Everything you need in your foundry"
Since 1874
Get our 400 page catalog No. 40A
The S. Obermayer Co.
CINCINNATI
CHICAGO
PITTSBURGH
90

QUINCY PATTERN CO
IRON & WOOD
STOVE PATTERNS
QUINCY, ILL.

PATTERNS
For Stoves and Heaters
First-Class in Wood and Iron
Vedder Pattern Works, Troy, N.Y.
Established 1835

PATTERNS
For Stoves and Heaters
The Cleveland Castings Pattern Co.
CLEVELAND, OHIO

WELLER PATTERN CO
DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS
QUINCY, ILL.

THE GEO. W. COPE STOVE PATTERN WORKS
Cor. Brush and Woodbridge Streets
DETROIT MICHIGAN

C. N. HOOPER, Dubuque, Ia.
Vitreous Enameling
TECHNOLOGIST
Designs, builds and starts new plants, improves quality and reduces the costs in those already established.

THE AMERICAN ARTISAN
Ads Bring Results.

Water Pails

Shipping Pails

Contractor's Pails

Fire Pails

Conical Fire Pails

Wheeling Galvanized Ware

Superior in quality and workmanship

MADE BY

Wheeling Corrugating Company

WHEELING, WEST VA.

Boston Chattanooga Chicago New York Philadelphia St. Louis

Sap Pails

Wash Tubs

Ash Cans

Oil Cans

Garbage Cans

Inland Open Hearth Sheet Steel

SOFT AND EASY WORKING

SEND FOR CATALOGUE | **GALVANIZED**—Perfectly Coated—will not peel. **BLACK**—Blue Annealed and Box Annealed. **ROOFING**—Painted and Galvanized—all kinds. | **INLAND STEEL COMPANY, Chicago**

LOCK-JOINT. Metal Ceiling WILL SELL

When you can offer ceilings with genuine advantages which can be absolutely demonstrated there is no question about their selling.

LOCK-JOINT METAL CEILINGS can be proven **entirely Dust-proof and Air-tight** which is a clinching argument.

Money is Being Made

every day by dealers everywhere with **Lock-Joint Metal Ceiling** because their competitors cannot secure ceilings which will cope with them when it comes to selling qualities.

We would be pleased to send you **Catalog "D,"** showing handsome panel effects and artistic combinations which will undoubtedly interest you. Write for it.

S. Keighley Metal Ceiling & Mfg. Co.
Pittsburgh, Pa.
Baltimore New York Washington Boston

The LENOX HOTEL

BUFFALO

Modern High Grade Fireproof

OUR OWN RAPID ELECTRIC CARRIAGES EXCLUSIVELY FOR PATRONS, operate continuously every few minutes from Hotel through Business District and to all Depots for principal trains.

EUROPEAN PLAN.
Rates $1.50 per day and upward.

GEORGE DUCHSCHERER, Prop.

Do as other Wide-Awake Dealers are doing.

Show your Customers the big New Catalog of

Berger's "Classik" Steel Ceilings

It has paid others to do this. It will pay you.

If you haven't the Agency for Berger's "Classik," *Get It.*

If you haven't the Catalog, *Get It.*

Don't delay, and risk missing the agency. *To-day* is the day.

Write to-day for Catalog D8, and details.

THE BERGER MFG. CO.

CANTON, OHIO.

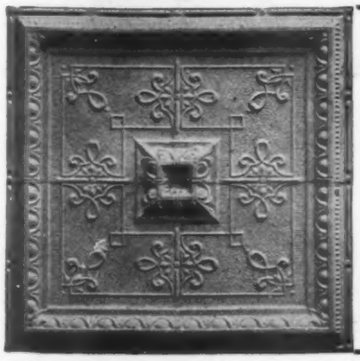
New York, Philadelphia, Boston, Chicago, St. Louis, Minneapolis, San Francisco, Atlanta.

WE CAN MEET THE DEMAND for "SOMETHING DIFFERENT" in

METAL CEILINGS AND SIDE WALLS

Our goods **are** different. The designs are NEW and ORIGINAL. The PLATES are ACCURATE. The JOINTS fit PERFECTLY. For ECONOMY in the COST OF ERECTION our plates lead all others. **We are quick shippers and can give you satisfaction.** Write to-day for CATALOG "A."

Wm. Foster & Sons Sheet Metal Works, 1000 E. Carpenter St. SPRINGFIELD, ILL.



FRIEDLEY-VOSHARDT CO.

Manufacturers of

Art Metal Ceilings and Side Walls

Sheet Metal Statuary

Architectural Ornaments

Send for Catalogue

194-204 Mather Street CHICAGO, ILL.

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths.

Will not burst when full of ice.

CLARK, QUIEN & MORSE, PEORIA, ILL.

W. DEWEES WOOD CO'S
PATENT PLANISHED IRON

SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
Wood's Oak Stove Body.
Wellsville Polished
Range Steel.

MANUFACTURED BY

AMERICAN SHEET AND TIN PLATE COMPANY

FRICK BUILDING PITTSBURGH, PA.

PROTECTION

FOR FIRE DOORS AND SHUTTERS

USE

BASSETT
GUARANTEED
FIRE DOOR TIN
I C
OPEN HEARTH
20-POUNDS COATING

IT'S THE BEST

Each sheet stamped as above and in every box is packed our guarantee, conforming in all respects to the requirements of the **National Board of Fire Underwriters.**

THE BASSETT-PRESLEY CO.
CLEVELAND, O.

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
SOUTH BEND, IND.

Standard Metal Shingles

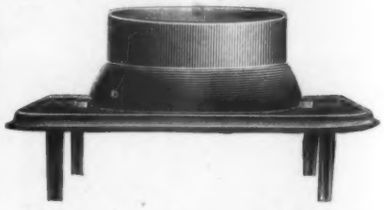
The Canton Ventilator

Made with Metal and Glass Tops and with and without **Automatic** closing device.

THE CANTON MFG. CO.
CANTON, OHIO
Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.

The "Best" Chimney Cap

No mortar or cement necessary to fasten this cap to the chimney—the legs keep it in place.



This cap is made of cast iron and is designed to replace the old style galvanized sheet iron hood. **It will last for years** as cast iron will wear longer than any other form of iron or steel when exposed to the weather.

Send for our complete illustrated catalog.

Sterling Foundry Co.
Sterling, Illinois

Collar Edging Rolls

Deep bead. Positively guaranteed not to cut the metal. Very rapid. No experience required.

Send for circular.

C. DeWITT WAGNER,
Cedar Rapids, Iowa.

"TITELOCK"

PAINTED TIN SHINGLES ARE SUPERIOR TO WOOD
GALVANIZED SHINGLES ARE SUPERIOR TO SLATE
COPPER SHINGLES ARE SUPERIOR TO TILE

SEND FOR SAMPLES AND BOOKLET

MILWAUKEE CORRUGATING CO.

MILWAUKEE, WIS. CHICAGO, 89 EAST LAKE ST. KANSAS CITY, MO.

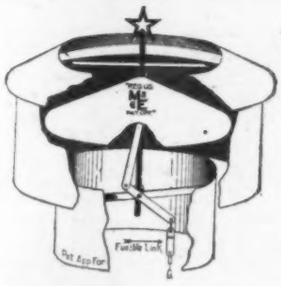
LIGHTNING FIRE AND WATER PROOF

GRIFFITHS' GENUINE CHARCOAL IRON ROOFING PLATES

CHARCOAL IRON FOR ROOFING holds the record for endurance—eighty years of service and still good.

W. G. Backus & Sons of Pittsfield, Mass., sent out pieces of sheet roofing put on a building by Mr. Backus' father eighty years ago, the under side being as good as ever, the upper side still in serviceable shape. Do you want such high grade service? You can get it by buying CHARCOAL IRON ROOFING PLATES from the

GRIFFITHS' CHARCOAL IRON MILLS, - - - - WASHINGTON, PA.



The "STAR" VENTILATOR

AND

The FIRE RETARDING "STAR" VENTILATOR and DAMPER COMBINED

Embody everything in the Best Scientific Storm Proof Ventilator.

MERCHANT'S METAL "SPANISH" TILES and "GOTHIC" SHINGLES.

These Tiles and Shingles have proved meritorious for years. They are in demand where ornamentation is essential. Also Lightness and Durability are special features of merit.

Write for Booklets.

"Reg. In U. S. M&E Pat. Off."

Merchant & Evans Co.

Sole Manufacturers

Philadelphia New York Brooklyn Baltimore Denver Chicago Kansas City

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS
ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

When Ordering **Charcoal Iron Conductor Elbows**

Specify With

GUARANTEE *F. Dieckmann* Stamped in the Metal.

CHARCOAL IRON

Makers of the Elbows which can be erected without Refitting and Solder, save Labor and Material.

THE FERDINAND DIECKMANN CO.
Station B, CINCINNATI, OHIO

PATENTED

The Canton Art Metal Co.

Announces that they are in a position to name attractive prices on *Eave Trough, Conductor Pipe and Sheet Metal Goods of All Kinds.*

EASTERN BRANCH
THE CANTON STEEL CEILING COMPANY
525 W. 23rd St., New York City

WESTERN BRANCH
THE CANTON STEEL CEILING COMPANY
253 Second Ave. South, Minneapolis, Minn.

The No. 1 is the Best Fire Pot on Earth,

and there are more of them in use than any other make. It uses but little gasoline and produces a pure blue flame that is intensely hot, and it has many advantages that make it indispensable to busy mechanics. Try one and you will say to your friends, as thousands of other mechanics are saying, There is nothing equal to a No. 1 Fire Pot. Jobbers supply at factory price, or we will ship direct if cash accompanies the order.

No. 1 Fire Pot. $6 Net.

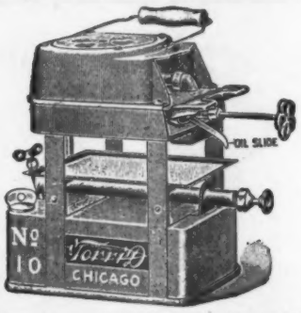
CLAYTON & LAMBERT MFG. CO.,
Detroit, Mich., U. S. A.

BADGER QUALITY
MANUFACTURERS OF

ALWAYS LEADS

BADGER STEEL ROOFING & CORRUGATING CO.
LA CROSSE, WISCONSIN

The "TORRID" Square Furnace



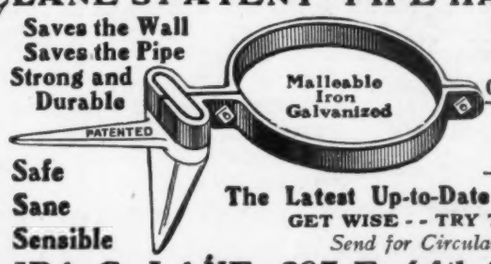
The most economical and hottest on the market. Noiseless, odorless and smokeless in operation. Our No. 10 has the greatest range in heating of any furnace made, namely 3 to 12 pound coppers, indoors or on a roof in cold and windy weather. Order of your jobber, or we will ship direct for $6.50, on 30 days approval.

GEO. W. DIENER MFG. CO.
77-83 West Lake St., Chicago

AWAY FROM WALL

LANE'S PATENT "PIPE HANGER"

Saves the Wall
Saves the Pipe
Strong and Durable



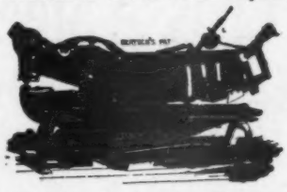
FOR CONDUCTOR PIPES
LEADERS
Outside Flue Pipes
For Brick or Wood

Safe
Sane
Sensible

The Latest Up-to-Date "Hanger"
GET WISE - - TRY THEM
Send for Circular.

IRA G. LANE, 207 E. 64th St., N. Y.

Combined Punch and Squaring Shear



(Hand Power)

This Combined Punch and Squaring Shear is designed especially for Range Manufacturers, for squaring, trimming or slitting, or for cutting rectangular or triangular holes of any size in the center of large sheets. We build a complete line of Shears, Punches and Bending Rolls, all sizes, for either hand or belt drive. Write for Catalog "F."

BERTSCH & CO. Cambridge City, Ind.

Time and Money

are both saved when you use the most practical and the most modern soldering furnace on the market—the one that *heats the irons as fast as you want them — the*

Lundy
Double Blast

This furnace is guaranteed to use less gasoline than any soldering furnace on earth.

None of the Heat Is Wasted

Write for our Special Introductory Offer.

MEYER FOUNDRY & FURNACE CO.
South Bend, Ind.

Ask Your Dealer For The

Sem

SOLDERING FURNACE

And You Will Make No Mistak

Always Ready — No Smoke — No Odor — No Noise — Unexcelled—Unequalled—Unrivaled —Safe—Sure—Durable.

Galvanized Iron, Brass or Copper Reservoir
Equipped with Cylindrical Slotted Burner
MADE ONLY BY
BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

BICKNELL'S HANDY PUNCHES and SHEAR

Mounted on Pedestal.
Three sizes of Punches and Shear, ready for instant use.
Saves its cost in a few months.

Hand and Power Punches and Shears from 35 lbs. to 2 tons.

BICKNELL MFG. & SUPPLY CO.
Janesville, Wis.

Thompson Bros., Muscatine, Ia.
Write: "Please stop our ad. for Tinner. The first issue brought results."

THE ELLER TRADE-MARK

is a little thing to look for, but a big thing to find; it appears on all genuine

ART METAL CEILINGS

Tin and Terne Plate
Eaves Trough, Conductor Pipe
Elbows and Shoes
Steel Roofing
Brick and Stone Siding,
Cornice and Skylight

ELLER MFG. CO. : : CANTON, OHIO

Pat. applied for.

"ALWAYS RELIABLE"

OUR NO. 21 TORCH BEST IN THE MARKET

This Torch is far superior to any other torch with pump in body; having in addition to the regular automatic cork check a positive shut off by screwing down pump plunger, which closes the needle valve in bottom of pump.

Packed one in wooden box, properly labeled. Write for our catalog No. 10 on furnace and torch, also catalog No. 5 on plumbers' tools, etc.

OTTO BERNZ, 21-43 So. 13th St., Newark, N.J.

No. 40

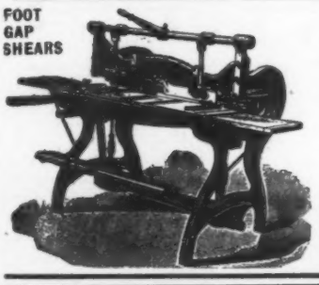
Berger's Wrought Star Ears

This is as fine an ear as can be made. Every piece is perfect, with fine finish, nicely tinned, same size and thickness as our malleable Star ears. No. 30 corresponds to malleable No. 3, etc. Furnished in gross boxes or in bulk to suit the purchaser.

Samples mailed free upon request.

Berger Bros. Co., Mfrs.
Office and Store, 237 Arch St.,
Factory, 3114-16-18-20 N. 17th St.,
Warerooms, 100-02-04 Bread St.,
PHILADELPHIA

FOOT GAP SHEARS



TOOLS FOR SHEET METALS

INCLUDING
Tinners' and Roofers' Tools,
Shears, Punches, Presses and Dies,
Can-Making Machinery
MADE BY
NIAGARA MACHINE & TOOL WORKS
BUFFALO, N. Y.

HAND PUNCHES, SKYLIGHT GEARING and CHAIN LIFTS

Tinsmiths, Plumbers, Cornice Makers and Coppersmiths

TOOLS

Pipe Threading Machines

Second-Hand Goods Bought and Sold.

H. WEISS & COMPANY 20 Cliff St., NEW YORK

MARVEL

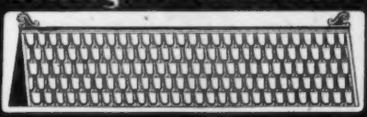
Patent applied for.

PORTABLE PUNCH No. 20

Made entirely of STEEL
Punches ¼ in. hole in ¼ in. and equivalent
Let us send you one on trial.
Write for circular and price of this and other Marvel Punches and Shears.
ARMSTRONG-BLUM MFG. CO.
106 N. Francisco Ave., Chicago, Ill.

WALTERS'

Shingles that last



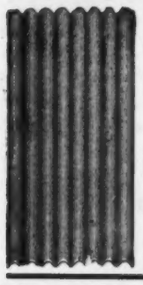
Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? This is your opportunity. Write for catalogue, samples and prices.

National Sheet Metal Roofing Co.
JERSEY CITY, N. J.

WRITE FOR PRICES
on

ROOFING SLATE

THE AULD & CONGER CO.
Manufacturers and Dealers
999 Prospect Street
CLEVELAND, OHIO



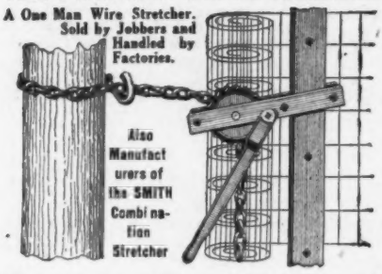
Metal Roofing and Siding.
Corrugated Sheets, painted or galvanized.
Metal Window Frames and Sash Glazed with wired glass.
Skylights.
Skylight Gearing.

Price list and estimates furnished upon request.

Sykes Steel Roofing Co.
108-120 West 19th Place
CHICAGO, ILL.

THE FRANKLIN WIRE STRETCHER

A One Man Wire Stretcher. Sold by Jobbers and Handled by Factories.



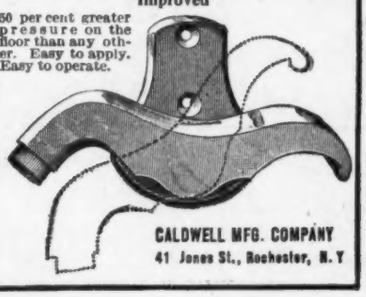
Our stretcher is self-locking, locks at every point, is very light. We are able to pull up to within fifteen inches of the end posts, and are not obliged to set a post beyond as with most other stretchers.

C. F. SMITH COMPANY, De Kalb, Ill.

Empire Door Holder

Improved

50 per cent greater pressure on the floor than any other. Easy to apply. Easy to operate.



CALDWELL MFG. COMPANY
41 Jones St., Rochester, N. Y

Gray's School of Sheet Metal Pattern Drafting

We do not teach arithmetic or any other preliminary studies. But we do teach Sheet Metal detailing and development of patterns from the first lesson to the last.

Our methods are the shortest and easiest. We can help any mechanic or advanced apprentice who is willing to study.

There is no time limit to this course, although the average mechanic requires twenty-five months, if he is employed during the day and studies during his spare time.

Write for full information concerning this school, also for full size school drawing. Enclose 4c in stamps to cover postage.

GRAY'S SCHOOL,

1028 Jackson Ave., New York

RUBY FLUID

A new perfect soldering flux, Chemically correct for use on galvanized and all other metals, excepting aluminum. Users dispense with acid and sal ammoniac. No fumes to cause rust, tarnish or corrosion which destroys tools, ware, stock, machinery and men. Sold on approval. Shipped in tin cans. Ask for booklet.

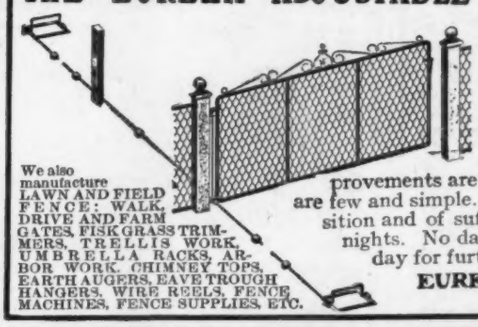
The Ruby Chemical Co., Johnstown, Ohio, U. S, A.
CHAS. M. HOOVER, Sales Manager, REVERE HOUSE, CHICAGO.

C. G. Hussey & Company

PITTSBURGH, PENNA.
Manufacturers of

Soft Copper,	Copper Nails and Tacks,	Cold Rolled Copper,
Copper Gaskets,	Tinned Copper,	Special Shapes Sheared or Stamped,
Copper Bottoms,	Polished Copper,	Slat ng Nails,
Soldering Irons	PROMP SHIPMENT FROM STOCK.	

THE EUREKA ADJUSTABLE AUTOMATIC GATE



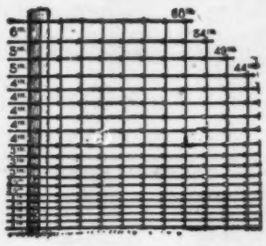
We also manufacture LAWN AND FIELD FENCE: WALK, DRIVE AND FARM GATES, FISK GRASS TRIMMERS, TRELLIS WORK, UMBRELLA RACKS, ARBOR WORK, CHIMNEY TOPS, EARTH AUGERS, EAVE TROUGH HANGERS, WIRE REELS, FENCE MACHINES, FENCE SUPPLIES, ETC.

Best and cheapest on the market. Constructed of the best steel tubing and best galvanized steel wire.

IT CANNOT BE IMPROVED UPON

All the latest practical improvements are embodied. The working parts are few and simple. The **single trip** is always in position and of sufficient length to be hit on dark nights. No danger of breakage. Write us today for further particulars.

EUREKA FENCE MFG. CO.
RICHMOND, IND.



The Denning Fence

¶ Is the Fence that pleases your customer. It is made on scientific and practical principles. It is made in various sizes, weights and meshes, for stock, hogs, poultry and rabbits.

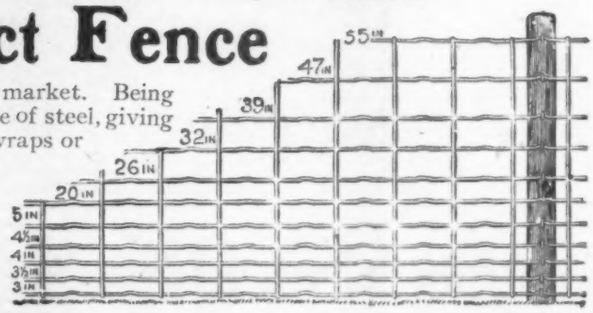
Write for catalogue and prices on Lawn and Cemetery Fencing, Gates, Barb Wire, Nails, Staples, Portable Corn Cribs and Grain Bins.

The Denning Wire & Fence Co., Cedar Rapids, Iowa.

Please Your Customers

by furnishing them with the **Electrically Welded**

Pittsburgh Perfect Fence

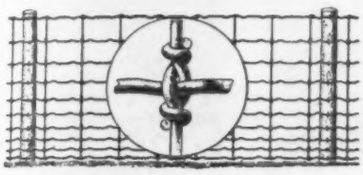


The strongest and the most satisfactory on the market. Being electrically welded, the stay and strand are one piece of steel, giving the joints double strength. This fence has no wraps or clamps to hold moisture and cannot rust. If you want to sell a really good fence, sell

"PITTSBURGH PERFECT"

Write for our descriptive Catalog.

PITTSBURGH STEEL CO., Pittsburgh, Pa.



On page 14 of our "APEX" Fence Catalog we tell our agents how, by a simple means, they can show a customer that our "Swinging Joint" Fence possesses greater flexibility and is easier to put up than any other fence he can buy.

This demonstration, which proves beyond any question the superior adjustability of "APEX" fence, cannot be duplicated by your competitor, with any other fence. This is a "SELLING POINT" which will interest any dealer handling wire fence. Send for our catalog to-day, and find out all about it.

JANESVILLE BARB WIRE CO.

Department A. JANESVILLE, WIS.

The Bromwell Brush and Wire Goods Co., Cincinnati, Ohio

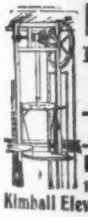
MAKE MORE RAT TRAPS THAN ANY OTHER MAKERS IN THE WORLD

ALL LOCKED RIBBED

Five Sizes. Steel Wire and Ribs. Patent Flange, Safety Doors. All Traps Lacquered. Rust Proof. Traps always set. Rats cannot escape when in the Trap. Strongest, best made, most saleable Traps in the market.

WRITE FOR 1909 CATALOGUE

We make all kinds of Brushes and Wire Goods. Started in 1819 and still at it. GET OUR PRICES.



ELEVATORS

Improved Quick and Easy, Rising Steam, Electric and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kimball Elevator Co., 139 Vincent St., Cleveland, O

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

We Manufacture 12 and 14 Mesh

ALUMINOID

in all widths made of 33 wire.

Heavy in 28 wire.

SEND FOR SAMPLES.

NATIONAL WIRE CLOTH CO., Niles, Mich.

Where Successful business men have advertised is pretty safe to advertise.

LUFKIN Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

Please Mention THE AMERICAN ARTISAN

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.
New York London, Eng. Windsor, Ont.

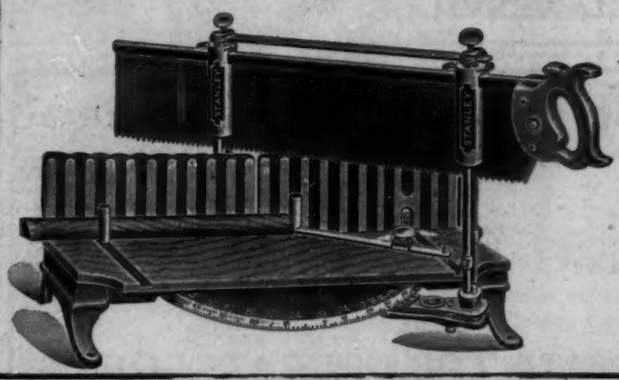
DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.
Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

We Are Leaders



In Mitre Boxes

Having the most complete line ever offered the trade.

AND OUR PRICES ARE RIGHT.
FULLY EQUIPPED WITH LABOR SAVING ATTACHMENTS.
ACCURATE—COMPACT—STRONG and DURABLE.
If you haven't our catalogue, write for it.

The Stanley Rule & Level Co.
New Britain, Conn., U. S. A

"SEAVEY" MITRE BOX

meets EVERY requirement

Cuts any angle-special or regular.
Needs no special saw.
Lightest box made.
Can be instantly applied.
The ONLY Mitre Box made that is attachable to inside or outside work without a special attachment.
Prices to-day from your Jobber or write for the Green Book.

SMITH & HEMENWAY CO.
108-110 Duane St., New York, U. S. A.

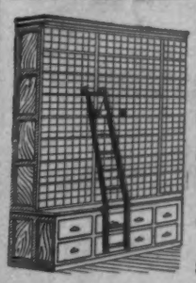
Imperial Vapor

Self-Heating FLAT IRON
Gasoline or Alcohol

IMPERIAL BRASS MFG. CO.
239 Jefferson St., - Chicago

NAILS THAT NEVER RUST

KEYSTONE BRAND GALVANIZED NAILS
CUT OR WIRE
Evenly Coated Perfectly Separated
KEYSTONE NAIL CO., Pittsburgh, Pa.
Send for catalogue and prices.



Milbradt's Rolling Shelf Ladders
Are made to fit all kinds of high shelvings and are guaranteed to be satisfactory in every respect.
HIGHEST AWARD St. Louis World's Fair
Send for Catalog and Prices.
JOHN CALANDER
Manufacturer
629-631-633 Jackson St.
ST. PAUL, MINN.

NOTE ITS SIMPLICITY

Automatic Swivel Vise

Locks Automatically by Tightening the Jaws

Saves 20 per cent Vise Labor

SEND FOR CATALOGUE.

ROCK ISLAND TOOL CO. ROCK ISLAND, ILLINOIS, U.S.A.

136 Liberty St. NEW YORK — 116 Lake St. CHICAGO

DENVER, 208 McPhee Building

LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.

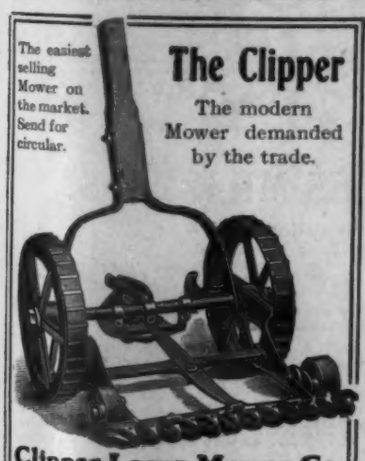
E. A. FOY & CO., Cincinnati, Ohio

Trade Supplied at Lowest Rates.
Send for Catalogue "B."

The easiest selling Mower on the market. Send for circular.

The Clipper

The modern Mower demanded by the trade.



Clipper Lawn Mower Co.
DIXON, ILL.
Manufacturer of Hand and Pony Mowers and Marine Gasoline Engines

THE HARRINGTON AND KING-PERFORATING CO.

PERFORATED METALS
OF EVERY DESCRIPTION AND FOR ALL PURPOSES
FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.
New York Office, 114 Liberty Street.

LIGHTNING RODS

A Creditable Line for Honest Men

Dealers: There is big money in handling the

Look for this brand — Barnett SYSTEM — Reliable by test

PURE COPPER CABLE

LIGHTNING RODS AND FIXTURES

OVER 98% PURE COPPER. Scientifically made in every respect. Permanent durability characterizes all our fixtures and ornaments. Absolute protection positively guaranteed.
Officially indorsed by Mutual and State-wide Insurance Companies. Consult our reports.
The QUALITY of BARNETT RODS is guaranteed to the purchaser. Sold only thru dealers and reliable agents. Our rods are in demand and there is good profit in handling them.
It should be greatly to your interests to know what you can do with our line. Investigate our agency proposition for this season.
DO IT NOW! Write at once for Catalog and booklet explaining the BARNETT SYSTEM, and prices.

JOS. BARNETT & COMPANY
Dept. 33 RIVERSIDE, IOWA

Maher's Pure Copper Cable

We now have the best Lightning Rod Factory, and the best of machines for twisting our cable. We make all sizes of Pure Copper Cable—30, 32, 34, 36, 40—or in fact any size you want, and our fixtures are the best that can be made—we manufacture them all and know just what they are. We also loan you one of the best static machines on earth free with an order for 2,000 ft. We use the purest copper we can buy and will guarantee it over 99% pure. And this season we have the price and that is what we are all looking for. We do not want all the profit and are willing to divide with you. Just drop us a line and we will explain and send samples of the best Copper Cable Lightning Rods and Fixtures at a price that you can make some money handling it.

MAHER & SON LIGHTNING ROD CO., Preston, Iowa

Lightning Rod Supplies

Copper Wire Cable, Copper Tube Rod
Lightning Rod Points, Etc.

A large stock carried in Chicago. Write for prices.

A. C. DALLAS & SON, Inc., Room 57, 163 Randolph Street, **Chicago, Ill.**

Champion Triple Action Ice Cream Freezer

Made in Four Sizes

1 Quart	each.	$1.00
2 Quarts	each.	1.25
3 Quarts	each.	1.50
4 Quarts	each.	1.75

WHAT IT IS The **"Champion" Freezer** is especially adapted for Household Use. Its principles of construction, beside being absolutely New, are entirely Different, Novel and Better than any f the new style of household freezers placed on the market during the past few seasons. Besides being better, you can guarantee the **"Champion"** to your customers as being durable.

WHAT IT IS CONSTRUCTED OF The Outside Tub is made of best galvanized iron. The dasher is made of malleable iron, heavi'y tinned, with a Wood Scraper, which prevents the cream from adhering to the sides of the freezing can while in process of freezing. The Cylinder or Freezing Can is made from block tin (re-tinned.)

WHAT IT WILL DO We know that if you sell freezers, and wish to handle one that will give your trade satisfaction, and do all that the manufacturers claim it will do; that you can sell at about one-half the price of any of the old style freezers (besides giving you a liberal profit) and a freezer that will make the finest Ice Cream, Sherbets and Frozen Desserts in a few minutes, our **"Champion" Freezer** is the one for you to handle.

17-19 Ninth St. REID-EDELMUTH MFG. CO. Brooklyn, N. Y.

Shelf Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments,
Send for Booklet.

W. B. HELLER & CO.,
MONTPELIER,
OHIO

FREEZERS

"LIGHTNING"

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

"BLIZZARD"

THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers **Catalog Sent Free**

NORTH BROS. MFG. CO., Philadelphia

- SHELVING -
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES.
J. D. WARREN MFG. CO. CHICAGO U.S.A.

INTERCHANGEABLE
LOCK-CORNER SHELF BOXES
For the Hardware Trade.
THE A. H. GREEN CO.,
97-101 Warren St., NEW YORK.

THINK TWICE

STURGES & BURN MFG. CO. CHICAGO

before you put in a new stock of Milk Cans. Don't buy the same line you've always carried just on that account.

You want the can on which you can make the best profit in the long run.

You want the can that will be sure to satisfy your customer.

Look for the best can that you can find

THEN BUY STURGES MILK CANS.

You'll sell more of them because your customers demand the can that is easiest to clean and that will stand many years of handling.

There are no poorly soldered seams in Sturges Cans to scratch hands and harbor germs, they're as smooth as glass.

They are built by skilled labor, of the best steel plate and heavily tinned and retinned, in our own factory.

Send for Free Catalog 75 before you order.

STURGES & BURN MFG. CO.

Factory—Harrison, Green and Peoria Streets.
Office—235 So. Green Street,
CHICAGO, ILL.

CUT THIS OUT

To the Publishers
The American Artisan and Hardware Record
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

AUTOMATIC SANITARY ICE CREAM FREEZER

The only FREEZER of its kind on the market.

A Time Saver,
A Labor Saver,
A Salt and Ice Saver

DELICIOUS CREAM CAN BE FROZEN IN THIS FREEZER IN FIVE MINUTES

It has no dasher, crank or gears to get out of order. Its cylinder is rust-proof and absolutely sanitary being made of white enameled steel; inside cover of aluminum. One two, three or four flavors can be frozen at one time as the Freezer is made with 1, 2, 3 or 4 cylinders of 1 to 4 quarts capacity each.

WITH THE USE OF A SPECIAL CAN IN ADDITION THIS FREEZER BECOMES A FIRST CLASS CHURN. :: Send for complete descriptive matter and prices.

THE NEW ENGLAND ENAMELING CO.

MIDDLETOWN and PORTLAND, CONN.

H. GINSBURG, Sales Agent. :: 736 Broadway, NEW YORK.

YANKEE [All Steel] DAMPERS and CLIPS

FOR SMOKE PIPE AND FURNACE PIPE

THE S. M. HOWES COMPANY. 40-46 Union St., BOSTON

THE TAYLOR & BOGGIS FOUNDRY CO., CLEVELAND OHIO

MANUFACTURERS OF

Light Gray Iron Castings

BUILDERS' HARDWARE, DAMPERS AND DAMPER CLIPS.

Oil and Gas Stoves, Furnace Lamps, Molasses Gates, Letter Boxes, Hardware Specialties.

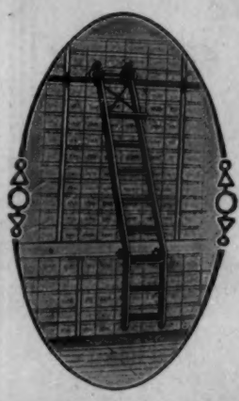
Elliott Dairyman's Sanitary Pail

The most perfect ANTI-RUSTING and cleanest SANITARY PAIL manufactured, for dairy purposes. They are extra soldered around ears, under rim and all outside seams. We GUARANTEE

ELLIOTT
PATENTED FEB. 17, 1903.

this pail ABSOLUTELY SANITARY and especially recommend it for Dairy Purposes. Should this pail RUST OUT, or BECOME FOUL, your dealer will REPLACE IT FREE OF CHARGE.

ELLIOTT MANUFACTURING CO.
WARREN, ILLINOIS



The Milbradt Ladders

ALWAYS PROVE HIGHLY SATISFACTORY

because they are made of the very best material that can be obtained, finished up in first-class style, and as there is nothing about them to give or wear out, or get out of order, will last indefinitely.

Write for our illustrated catalogue.

MILBRADT MFG. CO.
1440 N. 8th Street, - - ST. LOUIS, MO.

Washing Machines
Are Staple—
They are good
Things to use
Which makes
Them good
To sell—
That is if
They are
Reliable
Machines.

The White Line
Of Washing
Machines are
Reliable—
Fully guaranteed—
Safe to buy—
And safe
To sell.
Do you
Handle
Them?

White Lily Mfg. Co.
1500 Rockingham Road, Davenport, Iowa.

The Selling Season is now on—are you getting ready for it? If your store is attractively furnished and your goods rightly displayed in

A WOLVERINE KNOCK-DOWN SHOW CASE

you have a big advantage over your competitor

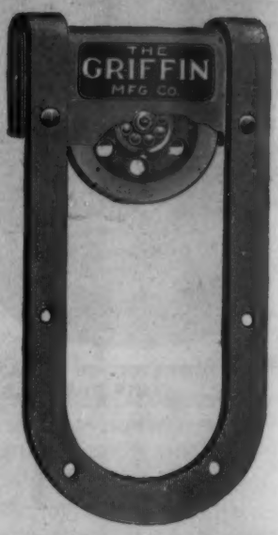
Not an expensive case—it looks as though it **ought** to cost a great deal more than it does. Beveled plate glass top, solid golden oak frame, and nickeled brackets and fittings make it wonderfully good for the price.

Our knock-down method of shipping saves you two-thirds the freight. Anyone can put it together in five minutes without tools.

Write today for new illustrated Catalog. Address Dept. C.

MICHIGAN SHOW CASE CO., 51-53 East Fort Street, Detroit, Mich.

GRIFFIN'S



Improved Steel Door Hangers

Made Entirely of Steel

(Wheels excepted)

These Hangers have hard steel Axles and Roller Bearings. Anti-Friction on any length of track.

Guaranteed to handle the heaviest doors satisfactorily.

Write for complete catalog of Hinges, Butts, Shelf Brackets, Door Bolts, etc.

THE GRIFFIN MFG. CO.
1500 Cherry St., ERIE, PA.

Plumbing,

Drainage, Water Supply and Hot Water Fitting.

By John Smeaton, C. E.

CONTENTS:

Chapter 1. Introduction. 2. Drainage. 3. Danger from city wells. 4. External plumbing. 5. Internal plumbing and fitting. 6. Sanitary plumbing. 7. Water services and tapping of mains under pressure. 8. Water supply. 9. Ornamental leadwork. 10. Heating. 11. Hot water work. Index.

236 pages, 217 illustrations, 8vo., cloth.

Price, $3.00.

For Sale By.....

DANIEL STERN,
355 Dearborn St.,
Chicago.

"Enterprise" Meat Choppers and

"Enterprise" Sausage Stuffers and Lard Presses.

DRIVE THESE TANDEM!

Every user of an **"Enterprise" Sausage Stuffer and Lard Press** needs an **"Enterprise" Meat Chopper.** Sell them together. Push them together. Drive them "tandem."

Every dealer, and almost every buyer knows the superiority of genuine "Enterprise" Choppers.

Lest you forget, we remind you of these points about the **"Enterprise" Sausage Stuffer and Lard Press:**

Accurately-bored cylinder. Lips on the inner tin cylinder to make easy its handling when heated. No hot iron cylinder to handle when pressing lard. A patented latch which prevents breaking of plates. Patent corrugated spout prevents air entering the casing, thus assuring preservation of sausage.

Write for catalogue describing, illustrating and listing these and other "Enterprise" specialties. Get our advertising aids for dealers.

The Enterprise Mfg. Co. of Pa.

Philadelphia, U. S. A.

21 Murray Street, New York **438 Market Street, San Francisco**

Good Things Sometimes Come Up Out of Egypt.

Davenport, Iowa, is not a very large place, but there is a machine sent out from that place which is helping more merchants to make a success of their washing machine business than any other machine on the market. We refer to the

SNOW WHITE

It stands for Quick Sales,--- Satisfied Customers,--- Good Profits.

Cut Showing Gearing Exposed.

H. F. BRAMMER MFG. CO.

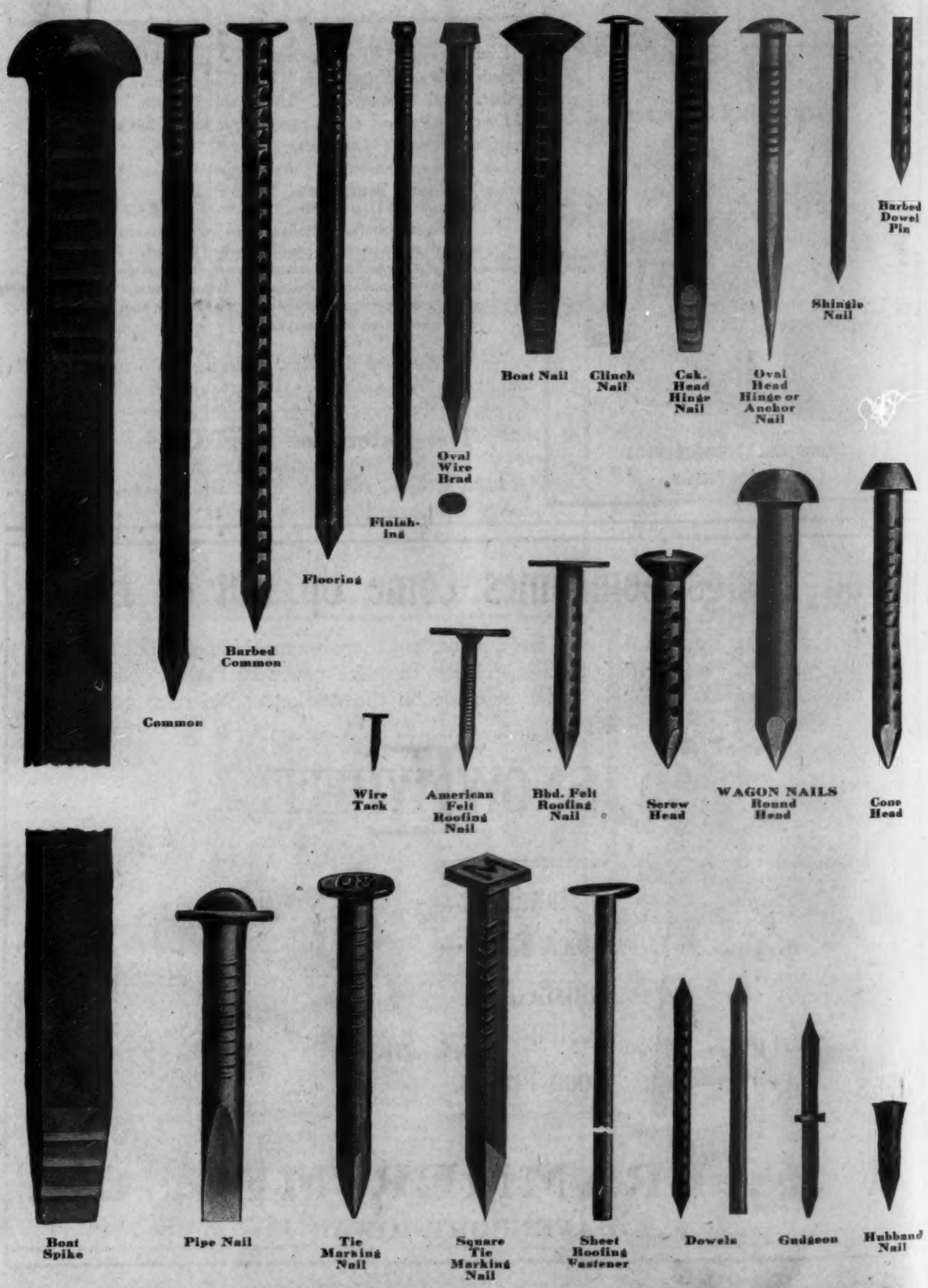
DAVENPORT, IOWA.

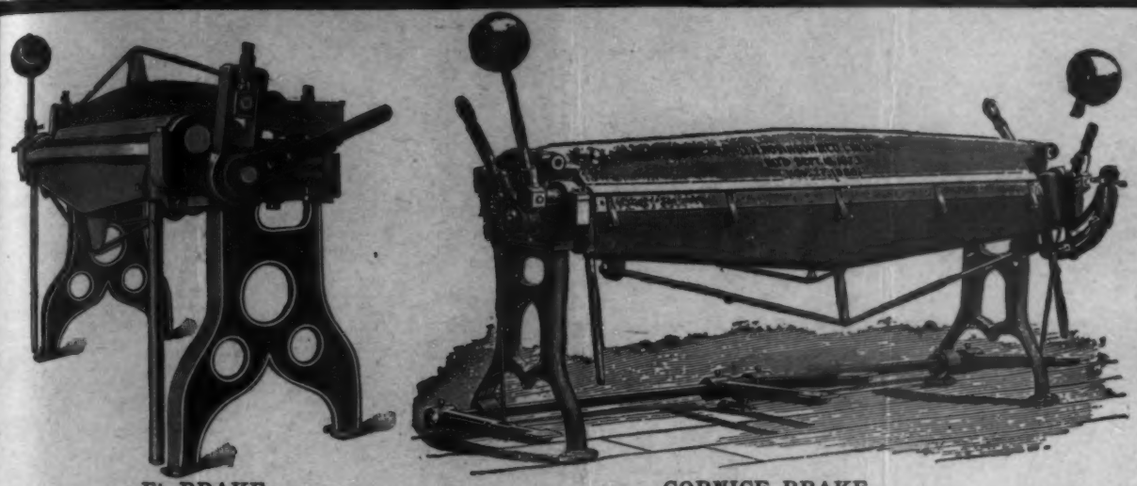
American Steel & Wire Co.

Chicago New York Denver San Francisco

Maker of

NAILS, SPIKES, TACKS





4 Ft. BRAKE
Capacity, 12 Gauge.

CORNICE BRAKE
Capacity, 20 Gauge and Lighter.

THE J. M. ROBINSON MFG. CO.

Manufacturers of Sheet Metal Working Machinery

3282 to 3288 Spring Grove Avenue CINCINNATI, OHIO

$100 IN GOLD FOR WINDOW DISPLAYS SEE PAGE 16

Every Store Should Have One!

THE AMERICAN ARTISAN ADVERTISING MANUAL

Retail merchants are to-day doing more advertising than ever before. They are doing better advertising also. With a little assistance most retail dealers could prepare very effective advertisements. To supply this assistance is the mission of this volume.

It contains 278 pages and 228 illustrations of advertisements which have actually appeared in newspapers. It contains innumerable hints, suggestions and helps that every dealer will find valuable. It is brim full of information for those who prepare their own advertisements.

Every merchant should secure a copy. **The Price is $3.50 Per Copy.**

For Sale by your Bookseller or by

DANIEL STERN, Publisher, 355 Dearborn Street, Chicago, Ill.

Standard Rifles

The new manufacturer, placing a new article on the market, to insure sales and attract the consumer's attention **must produce better and more attractive goods than kindred lines with an established reputation.** In the

Standard Gas-Operated, Automatic and Hand-Operated Rifles—

we have produced such, and—There's a Reason—They are the **latest** and **best** of anything in their class. These rifles must be seen to be appreciated and all who have had the pleasure of shooting them report—**"The Best Ever."** Any up-to-date jobber will be able to supply the trade after June 1st, 1909. Advance catalog now ready.

Standard Arms Company

133 F Street Wilmington, Delaware, U. S. A.

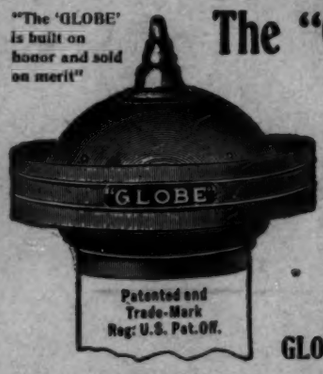
PER. NOT ENT'D.
MAR 1 1909

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF
For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character
SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"
Send for Pamphlet
MANUFACTURED BY
GLOBE VENTILATOR CO., Troy, N. Y.

The ECLIPSE Nested Stove Pipe Thimble

Saves 80 per cent of room.
Stronger than a hand-made riveted thimble.
Always Ready to hook together.
The Lug is always on top and passes through two slots then tied. Does not interfere with the entering stove pipe.

The ECLIPSE Nested Stove Pipe Thimble is made of Galvanized Iron in sizes of 5, 6 and 7 inch.
Manufacturers of Pieced Tinware and all Styles of Flour Sifters.
STUBER & KUCK, Peoria, Ill.

FOLLANSBEE BANFIELD PROCESS I C

EVERY ONE ON THE SQUARE

SCOTT'S EXTRA COATED I C

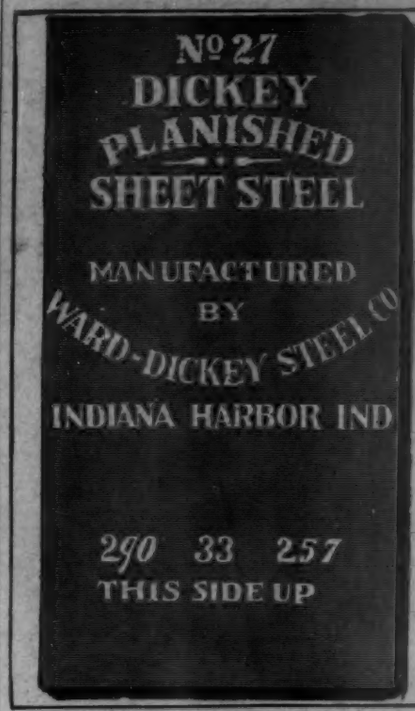
HAMMERED OPEN HEARTH ROOFING TIN

MADE BY
FOLLANSBEE BROTHERS CO.
PITTSBURGH

OLD RELIABLE REDIPPED I C

NO TROUBLE FOLLOWS THESE BRANDS

FOLLANSBEE SECURITY I C



Dickey Planished Sheet Steel

This Steel is Hammer Polished. It has the imported Russia Iron finish.

It stamps and wears finely, without breaking or destroying the finish. Our Steel

Stands the Heat Retains Its Color

Under long and high heats it proves its superiority over all others.

Users say:
"It works like copper—never breaks." Send for Circular and prices.

A FAST SELLING ITEM

and one which leaves the dealer a good profit is our

BERLIN KETTLE

Made with tin or enameled cover.
Our line consists of over 500 fast selling items.

Like all our goods it is strictly first class and sells at a reasonable price.

WRITE FOR CATALOG.
Star ★ Enameling & Stamping Co., PITTSBURGH, PA.

Drink Pure Water

The **No. 50 Star Pump** shown here will positively purify the water in any well or cistern in a short time.

This purifying feature alone makes it the only pump fit to put in any well where the water is used for household purposes, for it will surely save its cost in the Doctor's bill many times over.

As it is made of No. 24 gauge galvanized iron it is a very substantial and handsome outfit, and will last for years.

Our line of purifying pumps is very complete. So is our line of Galvanized Chain Pump Curbs and Tubing.

Ask your jobber for Star Pumps.

Star Bucket Pump Co.
ST. LOUIS, MO.

YALE
Russia finish, pat. Lock
STOVE PIPE

It is made of a very high grade of uniform color Blue Polished Steel and is coated to prevent rusting. Made in all sizes. Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States. Mfg. by **HEMP & CO.** 2nd and Chouteau Ave., ST. LOUIS. In the event Your jobber does not handle this pipe, send your inquiries to us.

The "CENTENNIAL"
RAIN - WATER - CUT - OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut-off made to fit **Corrugated** and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Manufactured only by
The Sullivan-Geiger Co.
19 & 21 E. South Street, Indianapolis, Ind.